THE ESSENTIALS OF CANCER

CAUSE AND CURE: METHODS
DESCRIBED & ILLUSTRATED
WITH SIMPLE EXPLANATIONS.

BY

JOHN A. G. HOLT.

LEGIONNAIRES' DISEASE IS THE EXCEPTION PROVING THE RULE THAT 434 Megahertz UHF AND X-RAYS OR GLUCOSE BLOCKING AGENTS ONLY CURE EXPONENTIALLY GROWING DISEASES; CANCER, INFECTIONS (HIV ETC.) AUTO-IMMUNE ETC.

SUMMARY ON PAGES 160 & 161.

THE PRACTICAL RESULTS OBTAINED APPLYING THE SCIENTIFIC BASIS

434 MHz Ultra High Frequency Radiowaves as an X-ray Therapy Sensitiser

and

GLUCOSE BLOCK BEFORE 434 MHz UHF

Sir Winston Churchill wrote:
"Out of intense complexities, intense simplicities emerge."

Lord Rutherford wrote: "If your experiment needs statistics, you ought to have done a better experiment. If the results are obvious no discussion is needed."

Sir Isaac Newton wrote: on the 5th. Febuary 1675:
"If I have seen further it is by standing on the shoulders of the Giants before me".

The Giant before me was my Grandfather, Mr. A.W.Elliott,who won Queen Victoria's Silver Medal in 1889 for his First Prize Honours Grade in Gas Engineering, followed by the Queen's Prize and 1st. Class Certificate in Advanced Building Construction, Science and Art,in 1893. He was marked top of 1962 Candidates from the U.K.and awarded 3 other prizes.
His son, Dental surgeon, G.A.Elliott, M.D.S. had inherited,as a direct descendant of Sir Isaac, his copper Christening goblet and we toasted his genius just before Mr. Elliott's death recently. This goblet now rests in a Devon Museum.

John A G Holt
MB, ChB, FRCS, FRCR, FRACR, DMRT, DobstRCOG

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This volume is a summary of my professional activites in the field of cancer, which was a direct result of my winning the 13th. Macloghlin Scolarship of the Royal College of Surgeons. It was awarded on the results of the First level of examinations for the Diplomata of M.R.C.S. and L.R.C.P., in 1942. My father was a science master at Bristol Grammar School. At age 15 in 1906 he had surgery removing his left eye and a sarcomatous cancer from his eye cavity, a result of a severe injury 6 months before. He lived to age 89. My sister and I had to train in medicine to cure cancer! My sister specialised in Psychiatry. My only cousin had to train and migrated to Canada. After junior hospital (Southmead, Bristol) appointments (surgery and Obstetrics & Gynaecology), military service as a graded O&G. specialist (T.Major) in Trieste for 2 years and then trained in surgery, becoming a Fellow of the Royal College in 1953. After general surgical practice I trained in Radiotherapy at Bristol and then at the Cancer hospital, The Royal Marsden hospital, in London. In my 4 years there we rotated through all aspects of Radiation therapy. 2 years providing the Radiotherapy for the Urological Services to South London under Mr. David Wallace, F.R.C.S. I assisted in his and Professor Haddow's first trials of chemotherapy drugs. With a Dr. Norman McKay we performed the first use of chlorambucil in the world, on ovarian cancer at The Royal Women's Hospital. I migrated to Australia to learn from Dr van den Brenk (surgeon,radiotherapist) how to avoid limb amputation for cancers of bone etc. (pp 125 to 128) and from Dr Kaye Scott who had shown how to destroy brain cancer in 3 cases when nobody else had succeeded. Both were leaving the clinic and I returned to general surgery for 2 years. In 1959 public charity raised over 1 million pounds (2 million $) to create the W.A. Institute of Radiotherapy and Oncology and I was invited to apply and was appointed soon afterwards, as Medical Director of The Institute of Radiotherapy and Oncology. created by Act no. 43 of the Western Australian Parliament, 1958, with tenure to 1990. After I had donated the first radiowave machine the Cancer Council illegally transferred all Radiotherapy equipment to Sir Charles Gairdner Hospital, creating a Department of Radiotherapy and simultaneously eliminating all the U.H.F. equipment that had been donated to them.

Joining Dr. Alan Nelson and Dr. Peter Leckie in the private Practice at 21 Mc. Court Street and financed another U.H.F. machine together with two Mega-voltage X- ray generators. Most of the clinical results obtained and recorded in this volume were from this practice.

Without the Royal College of Surgeons and their Macloghlin Scholarship there may never have been anyone prepared to stand on the Giant Shoulders of both Monsieur Louis Pasteur and Sir Isaac Newton,

SIMPLIFYING THE MEANING OF EXPONENTIAL GROWTH.

Identical to regular payments of Interest on Capital invested in a Bank Account. Hence the biblical term "usury" when applied to compound Interest. In life the growth rate increases as the body grows to amaximum stature, then declines to replacement of effete or damaged cells. This adult "growth" goes by the name "Gompertzian Exponential" maintaining a stable mass.

If generations of any living species are wiped out, without the exponential growth system to interpret those Genes, then such never recover. Hence the lesson of the loaves (corn growth) and fishes (restocking the oceans) are parables which indicate that these principles were understood in Biblical times.

Foreword

With few exceptions, cancer research has floundered for decades without significant progress, which by itself should tell us that it's basic premises are flawed. Any new understanding of cancer mechanisms, however, to be of real value must be translated into patient benefits, and here we are not disappointed. From the beginning, Dr Holt has remained at the coal face of the clinical arena, where the patient and disease meet. He presents his evidence from the basic chemistry to the clinical management.

His unique perspective comes from hands on experience in early radio technology as well as surgery. He has succeeded where all others have failed when he presents patients who remain well and apparently cured after treatment for arguably the most difficult diseases to treat namely mesothelioma and AIDS.

With this book Dr Holt points the way forward.

John Peacock
Perth, May 2002

Observations on Cancer and Genetics

CANCER IS NOT A GENETIC DISEASE. Cancer causes the Gene abnormalities which appear in cancer cells!
See Reference No. 36 in the Bibliography.

The genes which describe the manufacture of Insulin are "Blueprints" and are known for human and some animal varieties. In isolation they are inactive. To use their information to generate Insulin, the gene must be powered by Anaerobic Glycolysis. This system (burning glucose sugar without oxygen) is the power source for cancer and all single cell life (bacteria, viruses etc.). Therefore the INSULIN GENE implanted into cancer cells or bacterial cells will produce insulin which is pure and normal.
Human Multiple Myeloma cells were first chosen, discarded for Bacterial culture to avoid any possible human allergic reactions. All cancer cells are electrically conductive and this includes all cells which use Anaerobic glycolysis for their intra-cellular activities, making hormones and other secretions etc.
Therefore some normal cellular functions as well as all cancer cells are at risk from stray Radiowave Pollution. The risk will be in direct relation to the intensity of Radiowave pollution. The doses of radiowave energy absorbed are inversely proportional to the square of the source-receiver distance and directly related to the transmitter output.
Cancer and Diabetes are thus the prime targets to be implicated from Electro-Magnetic Radiation environmental pollution! It is quixotic that 434 Mega-Hertz U.H.F. radiowaves will always cure cancer when combined with appropriate X-Rays.

Cancer is curable but a world of incurable Diabetics is an horrific future!

What a price to pay for carrying a "WIRELESS" communication Transmitter & Receiver in your pocket! plus the pollution from fixed stations.

Louis Pasteur published in 1876 that the cells which were unable to use oxygen to control their reproduction created the autonomous growth called "cancer". Fermentation in a closed bottle is cancer and is killed by removing the bottle stopper! Details overleaf.

Observations

PAR L. PASTEUR,

Membre de l'Institut de France et de la Société royale de Londres,
Membre de l'Académie de Médecine et de la Société centrale d'Agriculture de France,
des Sociétés royale et médicale d'Édimbourg, etc., etc.

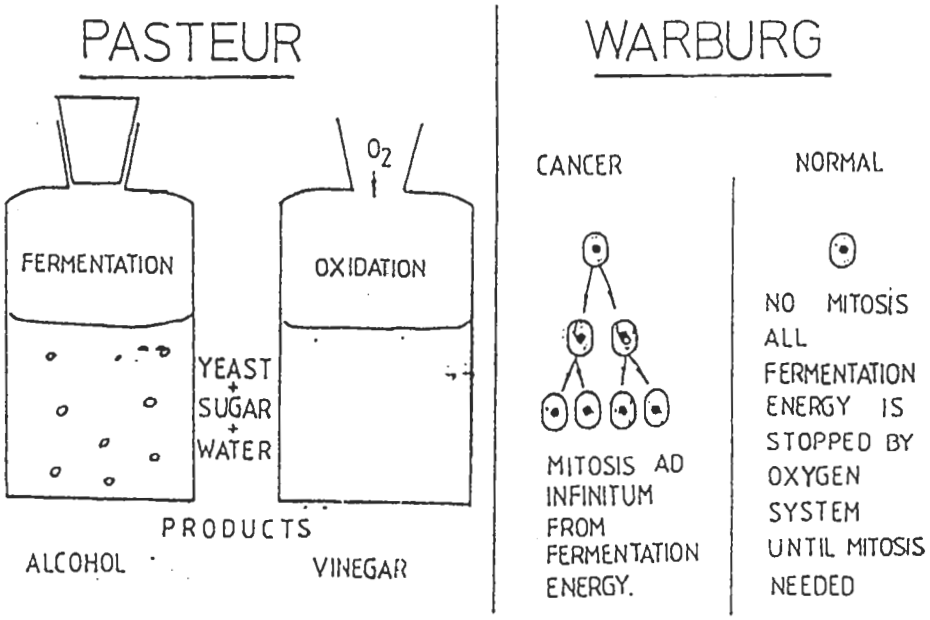
ÉTUDES SUR LA BIÈRE,

SES MALADIES, CAUSES QUI LES PROVOQUENT,

PROCÉDÉ POUR LA RENDRE INALTÉRABLE, AVEC UNE

THÉORIE NOUVELLE DE LA FERMENTATION,

PARIS, GAUTHIER-VILLARS, IMPRIMEUR-LIBRAIRE, 1876



PASTEUR' REACTION :OXYGEN CONTROLS FERMENTATION:(=CANCER)

Cancer and fermenting are identical. Both rely on oxygen free (anaerobic) glycolysis (sugar fermentation). Oxygen has a direct effect on yeast which stops the yeast "working". Without a cork in your wine or beer container the oxygen in the atmosphere turns sugar to vinegar. When corked the yeast produces alcohol and carbon dioxide which continues until all the sugar is exhausted or the bottle explodes. Just like cancer!

Warburg proved that cancer grows from the energy of fermentation. Oxygen controls the cancer fermentation in the form of oxidised glutathione (GSSG). Pasteur noted how a cork in the bottle changed yeast's activity from fermentation to oxidation. Hence this system is known as the Pasteur Reaction. Cancer can be controlled by making use of this reaction once we know how to pull the cork on it!

Yeast provides the essential ingredients of the Glutathione, which has symbols GSSG for oxidised and GSH for its reduced form.

The Pasteur Reaction

OXYGEN (AEROBIC) METABOLISM OF SUGAR CONTROLS THE NON-OXYGEN SUGAR METABOLISM.

Reaction	Oxygen Required	Energy Created (+) or Absorbed (-) ATP units per unit glucose consumed
Phosphorus + glucose + phosphorylation —> 2 glycerose	No No	- 2
2 Glycerose —> glyceraldehyde phosphate (D-isomer only.)	No	powers cellular division + 4
E-Rex: symbols for the electrical energy reaction of exponentiality	anaerobic	Exponential growth.
Anaerobic glycolysis via phosphoglyceric pathway	No	+ 8
Citric Acid cycle	Yes	+ 24
	aerobic	The control of cancer
Phosphogluconate cycle	Yes	+ 36
Note: ONLY D-Glyceraldehyde will react to generate E-Rex. The L isomer (L-Glyceraldehyde) is non-reactive.(next page).		

Efficiencies of Production of Energy from Ingestion of Food etc

The burning of carbohydrates produces energy stored in a molecule called adenosine triphosphate or ATP for short. The body can use ATP for all its activities, just like pocket money.

Glucose (a 6-carbon sugar) has to be split into two 3-carbon glycerose (or manno-nonose) sugars because it will not ferment and combine with phosphorus. This consumes two units of ATP.

The citric acid cycle produces 24 units of ATP. This is getting more efficient but the phosphogluconate carbohydrate metabolic pathway will produce 36 units of ATP.

Evolution has thus provided these various methods of burning glucose. Using only anaerobic phosphorylating glycolysis we would need to eat between four and five times as much food as we eat today to maintain our present activities. Therefore this entire system is controlled by the phosphogluconate pathway which is the most efficient of all the carbohydrate sources of energy.

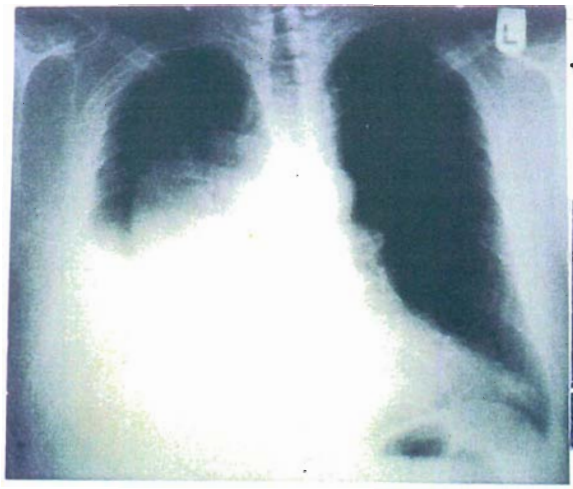
To suppress the inefficient systems the efficient ones must control those that were developed before them. This then is the explanation of the multiple intertwined glucose/carbohydrate energy systems. Cancer is a fault in the mitochondrial perfection somewhere in this evolutionarily long line of glucose metabolism. Pasteur's reaction fails with any defect of this aerobic control chain.

The phosphogluconate and citric acid systems interpret the genetic information in each cell which are the "blueprints" of the perfect cell. Cancer creates abnormal "cancer genes" because of the asynchrony between a rapid exponential system and/or the failure by the damaged citric and phosphogluconate aerobic cycles to manufacture rapidly or perfectly the other cell contents.

THE PASTEUR REACTION

REFLECTED SPECTRUM ANALYSIS

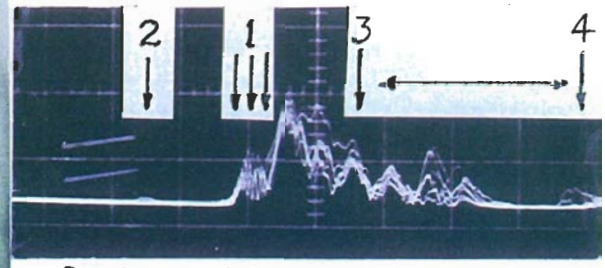
LUNG SECONDARY FROM BOWEL CANCER



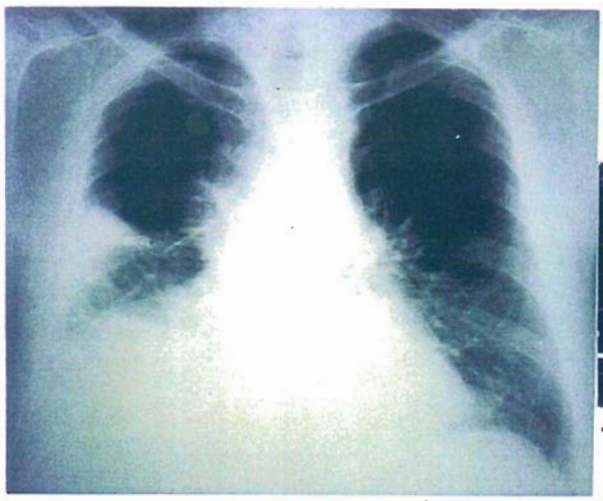
A: X-ray of large secondary bowel cancer in right lung.

BEFORE TREATMENT: A typical pattern:

1 = Fluorescence 434.6/435.2
2 = Fluorescence 436.4/436.6
3-4 = Resonance

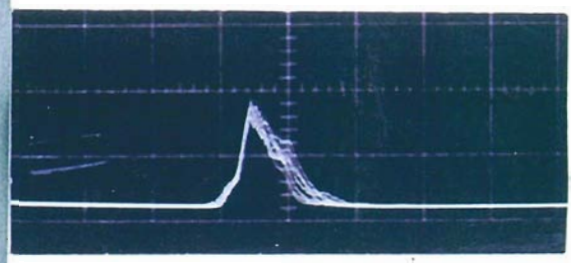


Spectrum analyser - Type 545/IL20 Tektronix.
1 MHz/cm, 50 traces/sec, 1/8 sec exposure.
Typical reflected cancer spectrum



B: X-ray one week after L-glyceraldehyde injection.

1 MINUTE AFTER IV INJECTION OF 10 GM L-GLYCERALDEHYDE



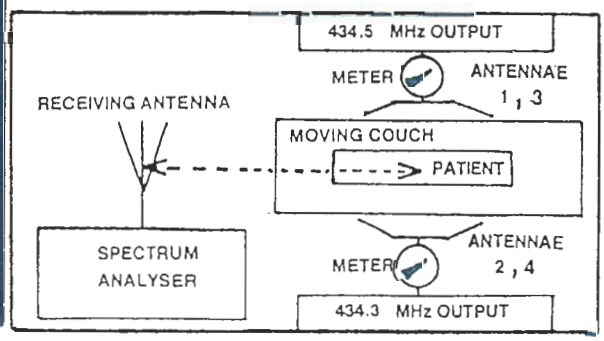
X-RAY 1 WEEK LATER

Immediate change of spectrum after the injection.



C: Rapid expansion of cancer three weeks after the temporary improvement.

X-RAY THREE WEEKS LATER:
SUDDEN RAPID DETERIORATION:
ORIGINAL SPECTRUM AGAIN



Clinical arrangements for recording the reflected spectra

This series of x-rays shows a temporary remission in the late stage cancer achieved by an injection of the Laevo-rotatory analogue of glyceraldehyde. Warburg showed that cancer could only metabolise D or dextrorotatory glyceraldehyde. Several other similar patients were treated with L-glyceraldehyde and all had a temporary improvement. These results provide concrete evidence to support the principles of E-R_{ex} and its place in powering cancer's growth.

L

UHF WITH X-RAYS: NON-THERMAL KILL OF CANCER
ENHANCED SELF-LIMITING REPAIR OF DAMAGE

4 August 1975
After UHF + 150 rads daily to whole pelvis the cancer dies and the whole cancer mass is visible.

15 April 1975
A fractured superior pubic bone ramus from a deposit of multiple myeloma

19 March 1976
After cancer dies, normal repair mechanisms reactivate ERex, remain under genetic /nucleolar high control via mitochondrial aerobic systems and are self limiting: the explanation of recovery of normal from x-ray damage.

PASTEUR'S REACTION.
MULTICELLULAR LIFE IS AERIBICALLY CONTROLLED CANCER

X-Ray dosages needed to destroy Anaerobic Glycolysis ($E\text{-}R_{ex}$) varies from 90 rads minimum when active to approximately 2,500 rads or more when inactive.

Aerobic Glycolysis (when the atmosphere contained Oxygen) will tolerate 600 or more rads as a single dose.

U.H.F. before the X-Rays activates all or most $E\text{-}R_{ex}$ systems and they are then killed with 90 or more rads. The optimum clinical dose is from 120/160 rads uniformly applied to all cancer sites each day to a total of around 3,000 rads.

CONCLUSION: Using treatment doses as stated here Pasteur's reaction which generates repairs is COMPLETELY PROTECTED AND ACTIVATED! whilst cancer is KILLED.

Note: "modern" nomenclature replaces Rads (Radiation Absorbed Dosage) with CentiGrays. This cumbersome 100th. of a Gray is prone to error in a very busy department also measuring temperatures in Centigrade and is not used for safety.

HISTORY OF THE ELECTRICAL & RADIOWAVE CANCER THERAPY.

The treatment of cancer in My Clinic was based upon the method used to cure cancers - of Denier from 1936 & Brunner-Ornstine & Randa in 1937. French & German Radiotherapists first proved the cure for CANCER.

The first cancer patients cured with Electricity were in 1774 & 1880, inoperable breast ulcer and jaw respectively. Both were struck with lightning hitting the cancer directly without harm elsewhere. Radio waves (434 MegaHertz) and low dose X-rays started in 1892.

Abstract of Published Literature, Cancer & Electricity.

1. Single life forms before planet Earth developed atmospheric Oxygen.
2. All life grows exponentially, which may slow to Gompertzian.
3. Therefore life can only be powered by an anaerobic system. Anaerobic glycolysis is unique and powers all unicellular life. (e.g. viruses etc). See attachment A. Denoted as $E\text{-}R_{ex}$ or an electrically conductive "e".
4. $E\text{-}R_{ex}$ MUST mathematically and by Lindt's discoveries create life growth.
5. Science of Cancer therapy, attachment B, summarised by the Head of Medical Physics to Western Australian Hospitals.
6. The cell nucleus is always anaerobic.
7. Before cell division the cell becomes anoxic, anaerobic glycolysis is no longer controlled by aerobic control: anaerobia controls Gene division.
8. When gene doubling is completed, the 2 sets are separated and each set is enclosed in a membrane. Aerobic glycolysis resumes and cytoplasm etc. is duplicated. Pasteur's Reaction is effective - division ceases. When Pasteur's Reaction is defective mitosis is continuous, = CANCER!
9. Sperm contains ER_{ex} ; the ovum provides the Nucleoli for gene replication instructions. Hence the need for 2 sexes.
10. The use of electricity for cancer & allied diseases was first published in 1774, & 1891 when cancer was cured by lightning strikes.
11. The use of radio waves dates from 1892. D'Arsonval "HF Currents will render great service to therapeutics" for cancer, diabetes, arthritis.etc.
12. 1899. Tesla cured T.B., and infections with H.F. currents.
    1900. Dudell made first H.F. spark gap generator.
    1902. Denoyes, L. Pub: Les Courants de haut frequences, (Paris).
    1903. Poulsen Arc used to treat cancer etc. "HF in the treatment of some diseases". Pub. London.
    1923. Lakhovsky. 2 metre waves destroying plant tumours. (Paris).
    1928. Esau & Schliephake, (also 1938) Sub metre waves in treatment, (Giessen)
    1935. Weissenberg, E.H. &Holzer, Foundations of S.W. Treatment London. The original discoverers of the NON-THERMAL Effect, "Low intensity of S.W. therapy for otherwise incurable diseases".
    ***1936. André Denier. THE FIRST IN THE WORLD TO USE MICROWAVES 60 TO 80cms followed by X rays for cancers.(Paris). Also "Les ondes Hertziennies Ultra Courtes de 80 cms". Jl.Radiol. Electrol.20:193. Exhibited at the Paris Congress "Ondes courtes en Biologie".
    1937. Brunner-Ornstein. 89 watt Randa designed generator, 78-80 cm waves synchronously or followed with low dose X-rays (80 to 100 roentgens) daily caused "X-ray refractory cancers to disappear when treated with the combined energies of the two". Also "there is no warmth after combined therapy and is a "specific" & "selective" therapy. Brunner-Ornstein,M, Randa K, "Versuche mit einem Magnetron- Ultra kurzwellengenerator für Medezinische Zwecke" Strahlentherapie 59, 267 et al, 1937.
    1946. Krusen F. H. & associates in U.K. copied Brunner-Ornstein. Excellent cancer results, reported in Proc. of the Royal Society of Medicine, 43, 641 onwards, 1950.

*** 1936. Essai de Traitement de Tumeurs Inoperables: Arch d'electric med. 44:403-410.

SUMMARY: ALL UHF / XRT TREATMENTS IN W.A. FROM 1973 copied Brunner-Ornstein and Randa's methods.

References for Item Numbers 6, 7, & 8.

STERN H, KIRK P L. The Oxygen Consumption of the Microspores of Tricillium in Relation to the Mitotic Cycle. Journal of General Physiology 31:243-248. 1948.

STERN H, TIMONEN S. The Position of the cell Nucleus in Pathways of Hydrogen Transfer. Journal of General Physiology. 38(1):41-52. 1954.

THIS CANCER IS UNIQUE

THE REASON FOR TWO SEXES.

The male sperm contain half of the genes, the ovum carries the other half. The ONLY CANCER which can ALWAYS be 100% cured using cytotoxic chemotherapy drugs is the female cancer called a CHORION CANCER which is a virulent cancer of the Placenta in late pregnancy,
The placenta is formed before the child has access to the mother's oxygen supply, and is created by the cancer's system of anaerobic fermentation which is ONLY present in the Sperm. Therefore when placental cancer (chorion cancer) grows, it is a MALE cancer in a female body: 2 totally unrelated genetic types!

The result is the only cancer which is the transplanted equivalent of cancer researchers - human cells in non-human hosts! Totally Genetically separate Cancer and Host,curable by drugs! This is why all laboratory based research is ??? value?

The next page compares Cytotoxics to poisoning.

Professor Sir Thomas Lewis, M.D.,F.R.C.P.discovered Electric Heart Currents which his researchers disbelieved, so he said, in the British Medical Journal, 1930, 1:479-483, as follows!

Describing Electro-cardiography "It is in the very nature of things that the study of disease, to be effective, must begin as it must end with the disease itself and that all knowledge applicable to human disease must owe its inspiration directly or indirectly to intimate contact with the disease as this exists in living man"

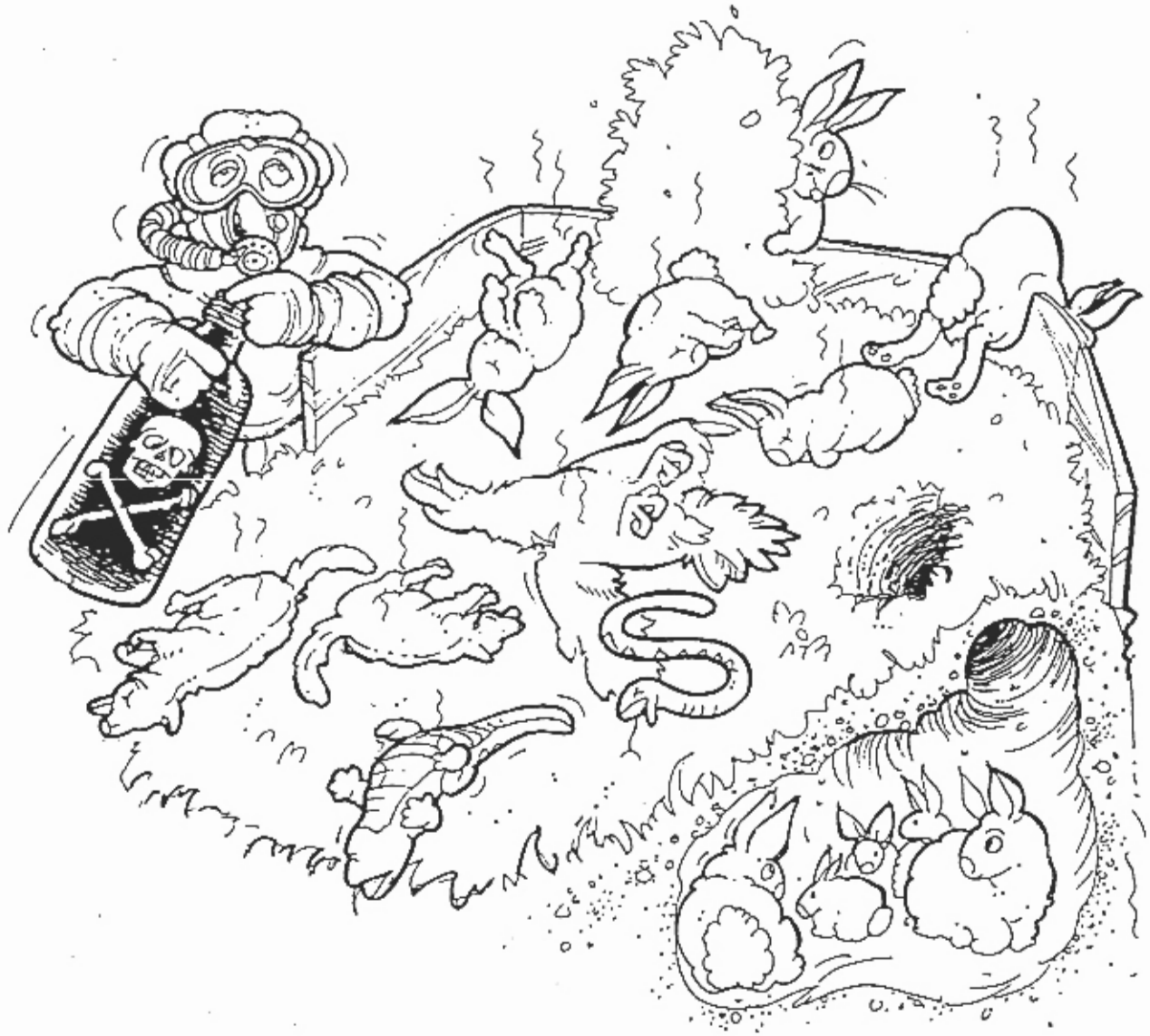
Clinical Research

Disease is cured by nurses and doctors at the bedside. Without very extensive experience in clinical human cancer therapy "scientific" experiments have little relevance to the human cancer problem. Because of the unique mathematical relationship between cancer growth and x-ray destruction the radiotherapeutically trained and practising doctor should be the only member of the profession who is full time employed in cancer's management and should provide a plan of management and supervise other methods. In my opinion all cancer researchers should be so qualified, with clinical therapeutic human cancer experience essential before entering a laboratory.

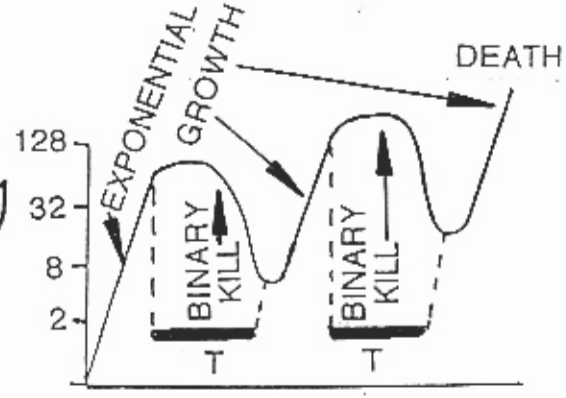
Cancer Research

Cancer has been depicted as having only a single break in its chain of control between ER_{ex} and its RNA information. However multiple breaks can obviously occur if a further injury develops. Further injury seems very possible and explains why cancer cells in culture may be a "new cancer" compared with the original cancer in vivo. So any spontaneous human cancer taken and grown in culture or in another animal probably damages it again. Research on cancer is therefore only possible in its original host! Certainly cancer induced in animals is very unlikely to bear any relationship to spontaneous human cancer. In experiments on monkeys, the baboons may well be the ones outside the cages.

Transplanted cancer is a "foreign" body and can thus be cured by cytotoxic chemicals which will very rarely cure spontaneous cancer. The only human cancer which corresponds to experimentally transplanted cancer is the chorionepithelioma in women. This is a malignant cancer of the normal placenta which grows only from male (sperm) derived cells. It is the only solid human cancer potentially curable with cytotoxic chemotherapy.



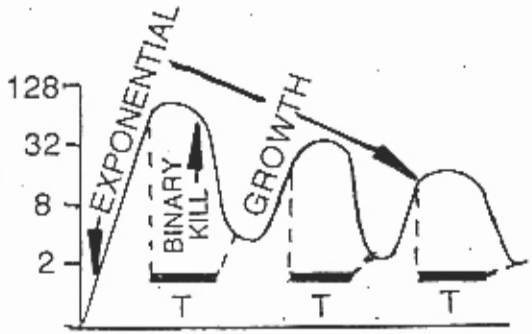




SOLID CANCERS treated using chemotherapy without exponential kill characteristics

T= THERAPY





NON SOLID CANCERS treated- eg leukaemias. A few are possibly cured.

Exponential Growth slows with age and obeys Gompertzian Exponential growth.

CYTOTOXIC CHEMOTHERAPY: Poisoning with NON-SPECIFIC poisons. Simple non-exponential (BINARY) damage. Kill of rabbits which are silly enough to eat it: kills some rabbit predators, eg snakes, eagles, dingoes etc, and other animals just as it injures the immune system. Usually curative only for chorio-cancer type of solid cancers. Rabbits in burrows are protected like cancer cells without a blood supply. Non-solid cancers which are diffusely in the blood stream are most likely to respond and are possibly cured.

BRAIN Cancer From Neuroblasts Only: Never from Neurones.

1. Developing neuroblasts on maturation become neurones. Therefore neuroblasts cannot retain their E-R_{ex} systems.

2. Adults neurones never become cancer. The adult neural cell cannot contain E-R_{ex} and cancer throughout the central nervous system arises from the supporting or glial cells. Inside the skull and spinal cord spaces,which are filled with cerebrospinal fluid,the cancer arises totally from the glial or supporting cells. Outside the spinal column, the cancers arise entirely from the Schwann cells which produce and nourish the tube-like covering of the nerve axons from the spinal cord to their peripheral connection on the muscles or sensory organs.

3. The spontaneous cure of widespread neuroblastoma cancer does occur and I have seen two examples. One in London and one in Perth, Western Australia, occurring in females both just before puberty. Both achieved complete disappearance of established widespread primary and secondary cancers.

4. Conclusion: Maturation of neuroblast cells to neurones and their axons requires E-R_{ex} activity. Around puberty this system must be expelled from the neural cells and their axons which is why within the central nervous system they are irreparable. They do not contain the E-R_{ex} system of exponential growth which is the power system which provides the energy for repair.

5. The neurones which send their axons outside the confines of the brain and spinal cord's cerebral spinal fluid (as peripheral nerves) regenerate spontaneously if damaged. This is because they are sheathed by a tube created by Schwann cells. Cancer of these is called a Schwannoma and can occur at any age. See pages 11 & 12 and its mathematical analytic comments which demonstrate that this particular Schwannoma has 23 E-R_{ex} power sources per cell.

6. As neurones do not become cancerous then the signal system throughout their axons cannot use electrical conductivity. The currents of Galvani must arise from the Schwann cells. They are too slow to permit total coordination of every muscle in the body as required by even simple physical activity. At a mere 200 kilometres per second speed Galvani's currents are so slow that nobody could perform any co-ordinated physical activity.

7. Michael Faraday understood this when, as President of the Royal Society a century and a half ago, he said he could not tell the position of a magnet waved about his body and head unless he had his eyes open! Since he formulated the laws of magnetic induction of electricity from a moving magnetic field, this provided the proof (you can easily do it yourself to confirm this phenomenon) that neural transmission of information is NOT by electricity.

8. Using super fast lasers Schoenlein and others have shown that in the optic nerve the first step in its conduction is the conversion of light to a nerve signal and it is performed in Femtoseconds. That is one thousand million millionths of a second. Nerve information conduction approaches the speed of light (Schoenlein R W, Petenau A and Mathies RA et al, in Science 1992, Vol 254, Pages 412 - 415.

CONCLUSION

ALL INTELLECTUAL FUNCTIONS MUST BE IN BRAIN GLIAL CELLS USING E-R_{ex}. An army where soldiers killed are all replaced exponentially (1→2 2→4, 4→8, 8→16 etc.) would always defeat an army replacing 1 by 1, 2 by 2, 3 by 3, 4 by 4 etc; victory demonstrating INTELLIGENCE!

ANY UNIQUE IRREVERSIBLE INHERITABLE SYSTEM OF EXPONENTIAL GROWTH AUTOMATICALLY CREATES AN ABILITY TO ADAPT TO ENVIRONMENT = INTELLIGENCE. Glial cells have a double "IDENTITY" and are the body cells most at risk from Radiowave pollution.

Siamese Twins: Cancer and Intelligence

Several varieties of brain cancer exist, They are named after the glial cell which becomes damaged and grows using its anaerobic glycolytic system(s) when oxygen control fails. Typical names are - glioblastoma, oligo-dendroglioma, astrocytoma, astroblastoma, medulloblastoma etc.

The Electrical reaction of Exponential growth, was denoted as E-R_{ex} but can also signify the King (Rex) of life which has electrical properties. As shown on the previous page, this system of irreversible expansion using the maths of living "things" is identical to Siamese Twins of Intelligence and Growth.

INTELLIGENCE can control its own destiny. Evolution can ONLY be created by the biological pressure to exploit its survival. It cannot be as Darwinian theory which is based on the luck of survival from a choice of options. Lamarck must be correct if the biochemistry quoted here is correct.

There is historical evidence that a low protein diet from early life predisposes to a lesser intellectual adult accomplishments. Various amino acids have been researched in relation to brain developing its full functions.

The amino acid CYSTA-THIONINE has been measured in every strata of animals, from single celled (amoeba and bacteria) species to man. This is manufactured from a common food source. All meats and other related foods which contain the amino acid METHIONINE are necessary for any living creature to make it.

"The concentration of Cystathionine in brain is greatest in man, less in the anthropoid apes, still less in rodents, and extremely small in invertebrates" Reference - Page 760, in Principles of Biochemistry, by White,Handler & Smith.

Because of these findings it must be assumed that Intelligence is created by the conversion of Methionine to Cystathionine, which occurs in GLIAL cells. The obvious explanation is that E-Rex uses its exponential anaerobic system to convert the methionine to cystathionine. To describe it as a system as is E-Rex,I have labelled it C-Rex, The CHEMICAL REACTION OF EXPONENTIALITY CREATING INTELLIGENCE,controlled by Lamarckian principles of evolution. When Aerobic control of the glial cell is faulty (PASTEUR'S REACTION FAILS)
EITHER THE CELL BECOMES CANCEROUS,
OR THE CELL CONVERTS TO ALZHEIMER'S DEGENERATION.

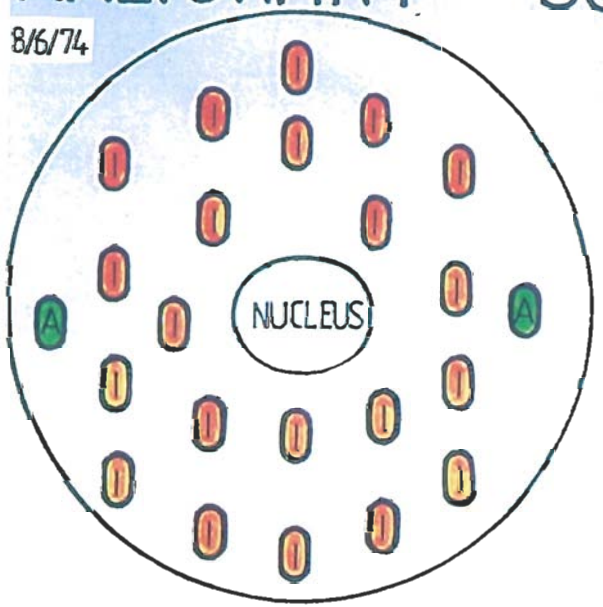
Alzheimer's disease is where cystathionine is faulty and the cells make many useless half-way products instead, causing the symptoms of the disease. There is another , similar, degeneration of the liver (AMYLOID DISEASE), also a chronic, slow failure of the liver causing death, plus several rare diseases of the same origin from the kidney or other organs. Most, if not all are the body's reaction to chronic infection, particularly to Tuberculosis etc. Treatment using glucose blocking plus UHF radiation has been of great value in a few sufferers and could be researched with good chance of finding a cure, The best result from an Alzheimer's sufferer was a woman of late 60's who had surrendered her driving licence a year ago. 2 months after 2 sets of treatments (3 weeks, 15 treatments) her licence was restored.

Intelligence can be defined as the results of converting Information to Knowledge in a glial cell when information collected from sensory organs is processed by Lamarckian control of the "information" (as methionine molecules)is exponentially converted to Cystathionine. If this system is faulty (Alzheimer's) it can be treated using Methionine Sulphoximine intravenously before the U.H.F. The faulty Amyloid production from the methionine is no longer possible and may halt the disease.
Normal C-R_{ex}, Methionine → Cystathionine =normal intelligence, is replaced by Alzheimer's: Methionine, → Functionless Amyloid fragments, adding Methionine Sulphoximine before UHF, → preventing Amyloid being formed.

Methionine Sulphoximine is a Glucose Blocker but can be toxic in some patients if they have no surplus methionine, when it may cause Feral Mental Derangement. This animal simulating behaviour was discovered when the U.K. Government gave shiploads of stored wheat to ease India's starvation. Stored with an agene pre-sevative some methionine had become methionine sulphoximine,well described by Mellanby "Canine Hysteria from treated flour" Br.Med.Jl. 1947, 2: 288-289.

MALIGNANT SCHWANNOMA

8/6/74



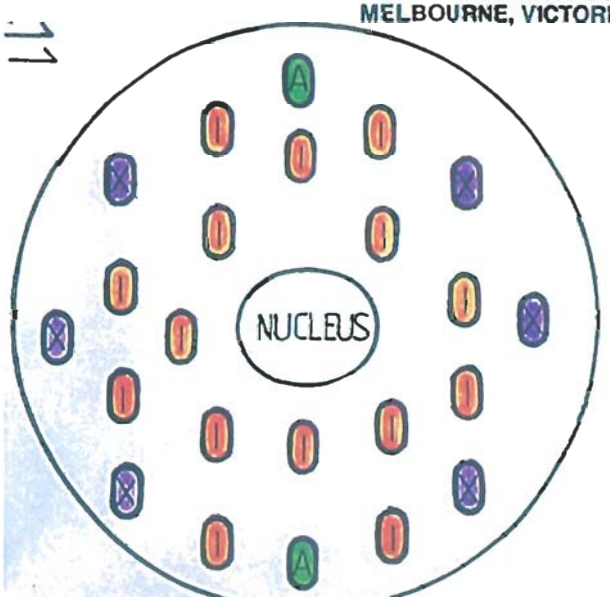
A — 2 ACTIVE AT ANY ONE TIME EXCEPT AFTER U.H.F.

I — INACTIVE.



$x = 23$ in $N_R = N_o (1 - (1 - e^{-D/D_o})^x)^y$: conventional x-ray therapy.
D = 200 rads per day to total dose 4,600 rads: y = 23 sessions: D_o = 160 rads.

THE PETER MacCALLUM CLINIC TREATMENT
MELBOURNE, VICTORIA. CANCER CONTINUES TO GROW.



A — 2 ACTIVE.

I — INACTIVE.

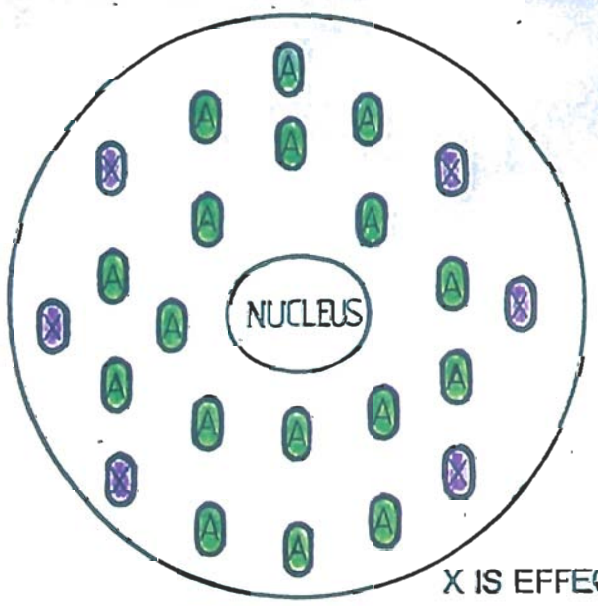
X — KILLED BY X-RAY THERAPY. 6 OR 7 IS THE LIMIT OF NORMAL TOLERANCE.



x = 17 after the 4,600 rads of x-rays had killed 6 ER_{ex} units.

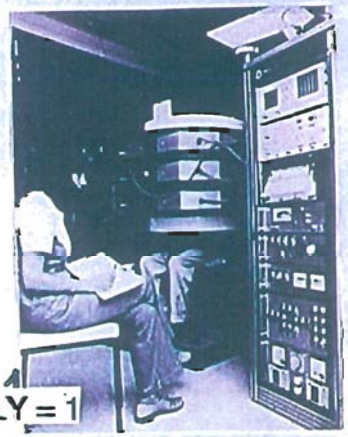
EFFECT OF 434 MHz UHF (MISS J Le G. AGE 13 YEARS)

AGA Telethermography after each application of UHF, before x-ray therapy: maximum was 39.8°C on final session. Average = 39.2°C.



A — UHF ACTIVATES ALL.

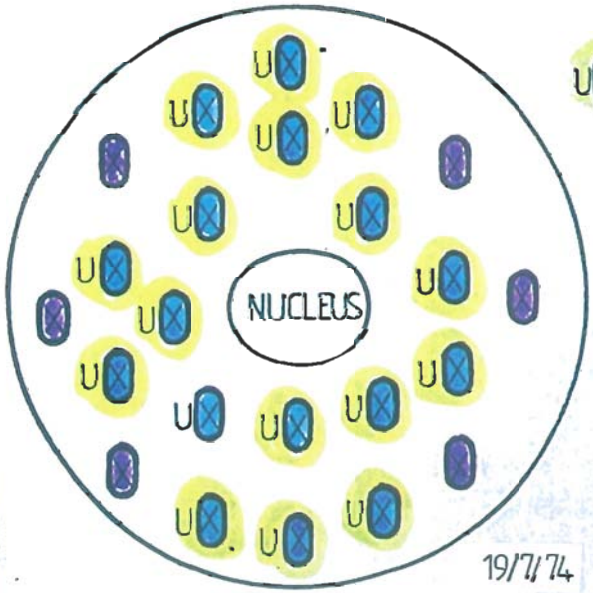
X — KILLED BY X-RAY THERAPY.



X IS EFFECTIVELY = 1

x = 1 for 30 minutes in $N_R = N_o e^{-Dy/D_o}$ at less than 39.2°C after 434 MHz Ultra High Frequency radiation followed by x-ray therapy. D = 150 rads per day to total dose 3,300 rads: y = 22 sessions: D_o = 110/120 rads.

UHF AND X-RAY THERAPY IN PERTH, WA



U — AFTER UHF. KILLED BY X-RAY THERAPY.



x = 0. All ER_{ex} units dead. Cancer eliminated. The residual disease N_R = 0 after killing N_o of 23 ER_{ex} units.

The survival curve takes the form

$N_R/N_O = (1-(1-e^{-D/D_O})^x)^y$

For any specific cancer cell conventional x-ray therapy assumes that x, D_O and A are fixed (because no evidence to the contrary formerly existed).

1. Conventional radiobiology shows that D_O is approximately 160 rads for normothermic, in air conditions. If so this malignant Schwannoma treated in air with 23 doses of 200 rads, 6 M.E.V. x-ray therapy (in Melbourne, Victoria) should respond according to

$N_R = N_O (1- (1-e^{-200/160})^{17})^{23}$. N_R and N_O are the pre and post treatment volumes respectively. If "x" is 17, which is a very probable number of targets that must be individually hit and killed in each cell, then:

$N_R = N_O (1- (1-e^{-1.25})^{17})^{23}$

$= 0.69\ N_O$

But in 35 days of x-ray therapy N_O would have grown to at least 1.4 N_O if the doubling time was 70 days, which was its growth rate before initial therapy.

2. But UHF before x-ray therapy to less than 41.8°C reduced the Schwannoma to zero. This can only be explained if in the equation of response x = 1.

Substituting 1 for x, D at 150 rads per treatment, for 22 treatments and reducing D_O to 110 rads as above to allow for the minor heating effect to less than 40°C.

then $N_R = N_O (1- (1-e^{-150/110})^1)^{22}$

$= N_O (1-1 + 0.2254)^{22}$

$= N_O . 0.2254^{22}$

Therefore: $N_R/N_O = 1.9 \times 10^{-20}$ approximately

N_R and N_O can be considered as volumes or reduced to cell numbers because one cubic centimetre is approximately 10^9 or one billion cells. An "overkill" situation!

If however x is only reduced to the equivalent of 2 (not all E-R_{ex} units are activated) then $N_R = 1.4 \times 10^{-8} N_O$ at best: which is far worse than the clinical response demonstrates. The only possible conclusion is that x is directly sensitised by UHF and that by activating all E-R_{ex} units, x becomes unity.

This Schwannoma disappeared completely within four weeks. When after UHF, and "x"=1, subsequent X-ray therapy (lower doses then usual because of the radio-sensitising effect) can treat all areas & any cancer, even re-treatments, 95%+ curable. The following two pages demonstrate how the E-R_{ex} numbers (x number in equations of response to X-ray therapy) are calculated. When x = 23; Totally radiotherapy resistant. x = 17; High doses cure with implants for small cancers. x = lower than 7 or 8; conventional XRT is usually curative. x = 1 when UHF precedes the X-ray therapy and comparision of the response with and without UHF allows calculation of the x value.

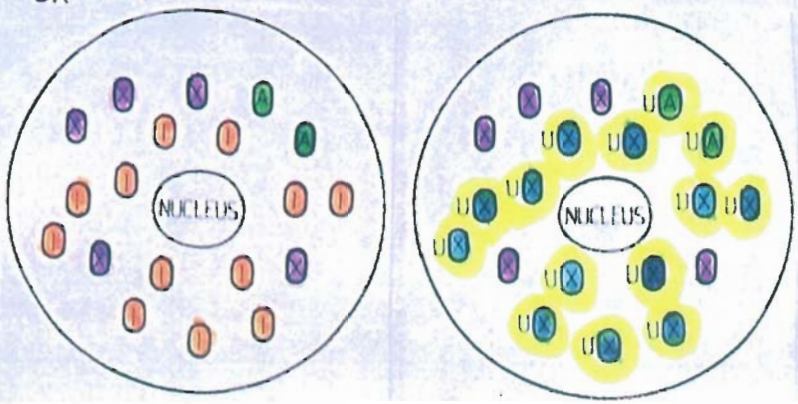
A MYOSARCOMA OF NECK MUSCLES - (Mr JR, AGE 46 YEARS)





Recurrence after surgical excision 12 months ago. Treated with 22 daily doses of 200 rads (total 4,400 rads) without effect.

If x number was 17, this should have killed 5 of the ER_{ex} units.



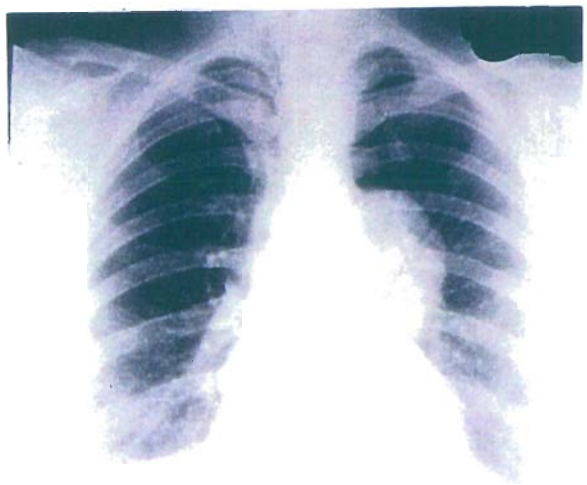
Four weeks after completion of 20 daily UHF followed by 20 doses of 150 rads 4 MEV parallel opposed fields this malignancy disappeared.

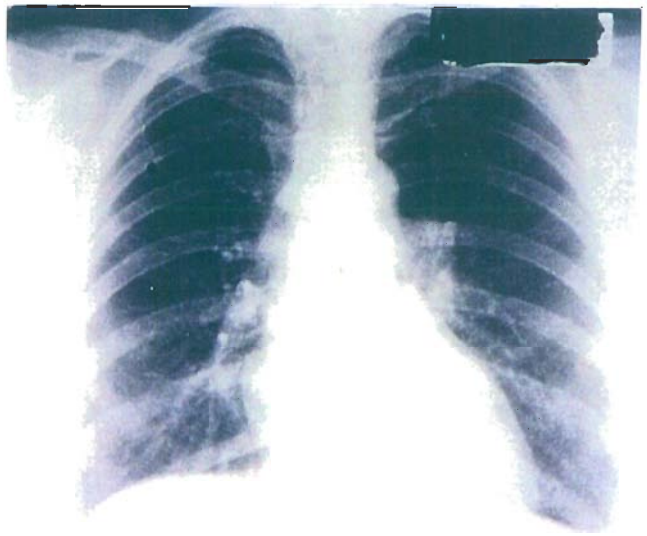
UHF reduced x number from 12 to the equivalent of 1, because all are activated when irradiated.

Maximum temperature recorded by R W Standford, MA, F Inst P, was 39.1°C on the 4th day using an implanted platinum thermometer.

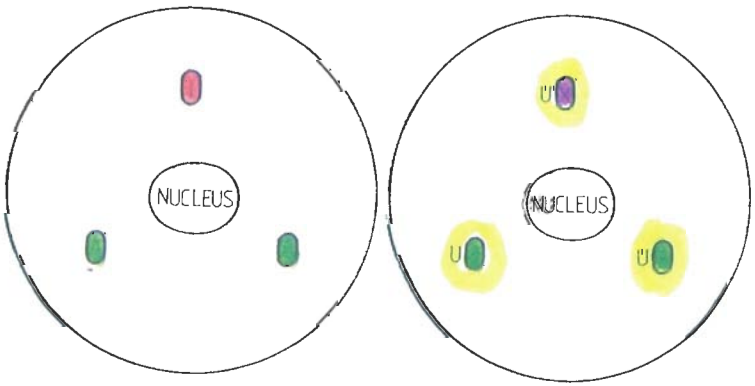
NON-HODGKIN'S LYMPHOMA

(Miss GH, age 31, abdominal and chest disease)





A mass of lymph nodes in the left hilum. Treated with 10 daily doses of UHF, each followed by 160 rads telecobalt (80 cm STD) therapy. Multiple deposits on CT scan in her abdomen were treated with x-ray therapy only, same dosages, without UHF.



Normal chest x-ray two months later, apart from the sequel of acute radiation pneumonitis (⌝ shape of x-ray field visible in area of original mass).

Effective x number = 1 (with UHF).

CT scan of abdomen reported normal.

Effective x number = 2 or 1 (without UHF).

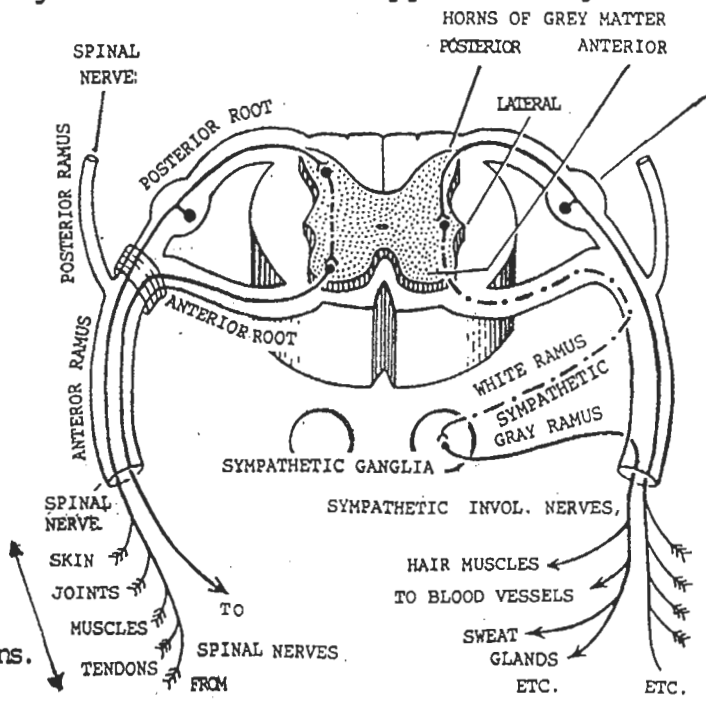
Conclusions:

1. UHF has little or no effect, therefore radiosensitive cancers have a minimum of 1 or 2 active ERex units per cell at any time

2. Clinical radiosensitivity is inversely proportional to the effective x number.

OBSERVATIONS ON THE SCHWANN CELLS.

Any nerve comprises a bundle of individual fibres wrapped in a sheath of loose tissue, an inner epineurium and outer perineurium. The central information carrying fibre is called the axis or neural cylinder. It is surrounded by a soft, thick white tube of myelin which is covered with a tough tube or outer neurilemma. The axis is continuous between the spinal cord cell and its sensory or motor terminal. This neurilemma sheath is the Schwann cells and regular cell nuclei appear along its length.



Posterior= Back.

Anterior= Front.

Voluntary Nerve signals travel in both directions.

ganglion.

This is a diagram across the spinal column.
The shaded centre is the grey fibres to & from the brain.
LEFT side are the voluntary nerves,
RIGHT side the involuntary or Sympathetic system.

Every movement the body makes, both vigorous or gentle, changes our centre of gravity. The body automatically corrects this imbalance by altering the pull of our spinal and any other muscle needed to restore balance. This is done at such speed that we keep our balance, close to the speed of light.

Muscle "Tone" is continuously maintained by the voluntary (left hand side of the disgram). Nerve signals from strain-gauge receptors in muscles, tendons & joints are sent into TWO different directions, up the spinal cord to the cerebellum which using the ears' semi-circular canals returns signals to muscles to restore balance, AND also back along the same nerves to the muscles which are generating strain-gauge signals!

Cutting the spinal cord, e.g. spinal injury causing a paraplegia, immediately increases the tone (a steady contraction of the muscles) in the paralysed section of the body. Therefore the brain, using its cerebro-spinal nerves, controls your muscles by signals to REDUCE their tone by relaxing them!

Paraplegia is irrecoverable and permanent because the nerves within the bony skull and spinal vertebrae are not sheathed with Neurilemma of Schwann cells. In contrast peripheral nerves (from spinal cord to all body areas carrying sensory, motor and involuntary sympathetic information in both directions) will regenerate after cutting or damage because they are covered in Schwann cells, which alone contain E-R_{ex} in nervous tissue.

The ratio of spinal paralysis to peripheral nerve damage from trauma is 1 to 1,000+ approximately. To cover all brain and cerebo-spinal nerves with Schwann cell access would double (or more) the volume of the skull and spinal canal. Surely an example of the INTELLIGENCE of E-R_{ex} which restricts itself to areas of greatest need which avoid gigantic bone cover for very rare and severe injuries. Sherrington discovered this complex system.

Since peripheral nerves regenerate, a possible nerve graft outside the dead part of the spinal cord connecting the highest and lowest functioning peripheral nerves, which could re-grow their axons, is an idea to contemplate.

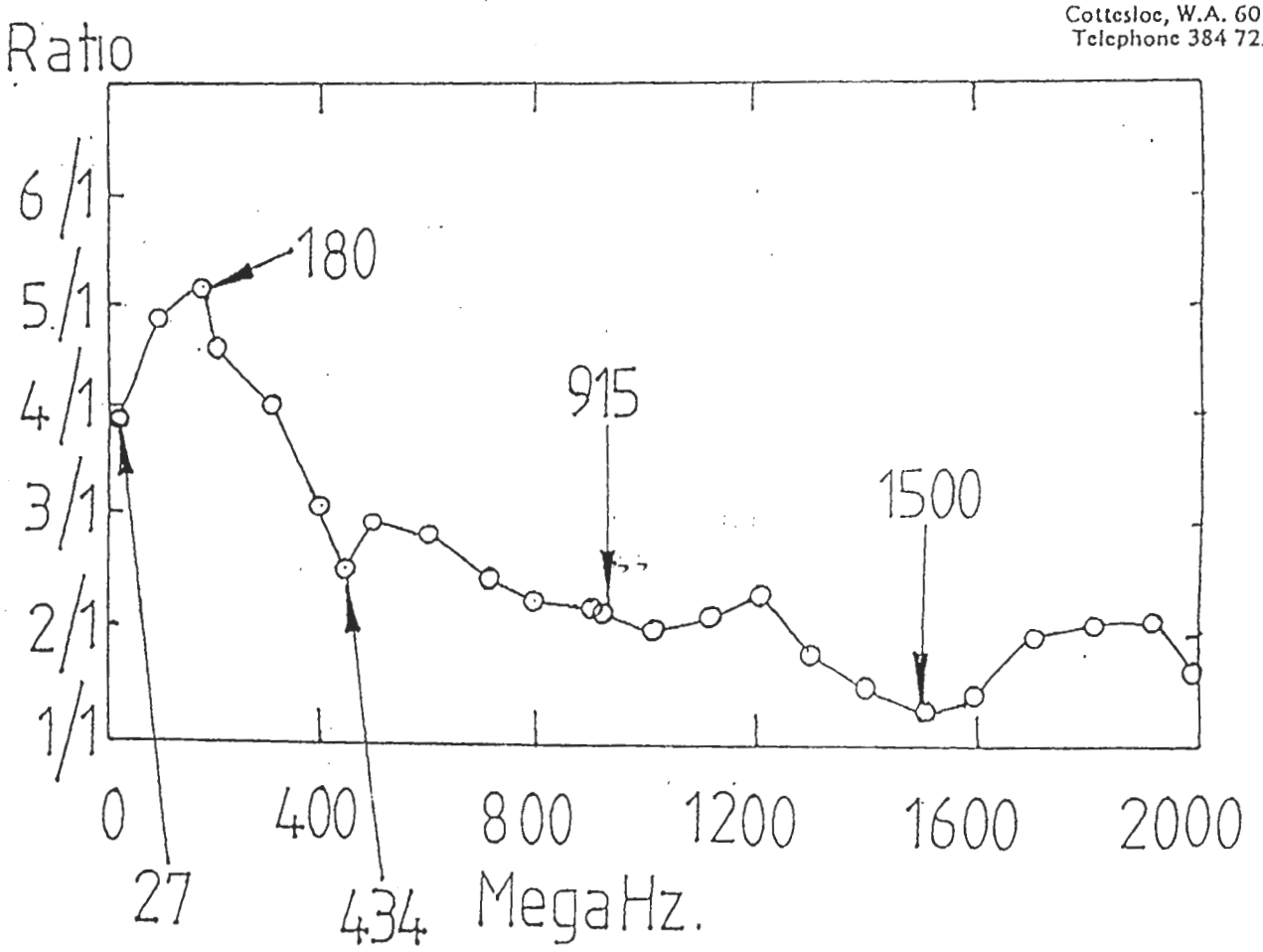
ROBERT STANFORD ASSOCIATES

Consultant Physics Services

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27 June 1979

Chart of the Absolute Fractional Power Absorption of human breast cancer compared to the absorption in the subjects' opposite normal breast measured at the mirror image site. The ratio peaks at 180 MHz and is 5.16. Resonance occurs at 434 ± approximately 10 to 15 MHz. 27 MHz is UK's standard medical usage. 915 MHz is used in USA. The ratio of 1.22 is lowest at 1500 MHz ± approximately 50 MHz. The error in each curve is the same at all frequencies at ± 0.1 of the ratio figure.

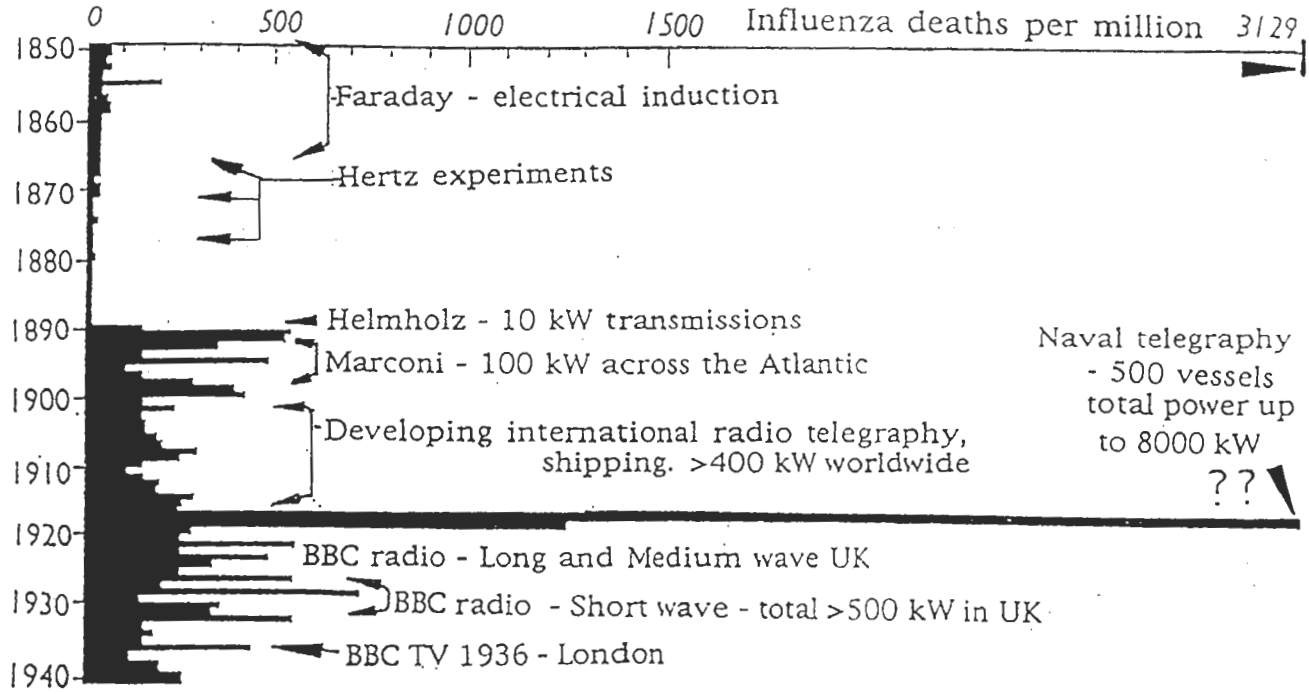
This is the average result from five patients who had unilateral breast cancer and who agreed to this study immediately preceding definitive treatment using microwaves and x-ray therapy.

By R.W.Stanford,

Director of Western Australia's Medical Physics Services.

Mr. Stanford deduced that as Influenza grew Exponentially, then it must be powered by E-R_{ex}. Next page, 17, was his research into this disease.

Influenza deaths per million from 1850 to 1940 (England and Wales).



Registrar-General's figures for deaths from influenza.

The relationship with e-smog: All viral infections are electrically conductive and ??caused the mutation of influenza into a lethal "new" disease?

This investigation was performed by Dr. H.J.Woodliffe, M.D., F.R.A.C.P. and Dr. Lesley Dougan, M.B.,B.S. Dr. Woodliffe, formerly Professor of Medicine & Pathology at Makereree University,Africa,undertook this study because he had seen an identical reduction in life-span from C.G.L. after T.V. services had started in that city and environs. He later showed a similar change in C.G.L. survival around Johannesburg. These findings were all reported in Japanese but never in English by the W.A. cancer council, which had financed the work.

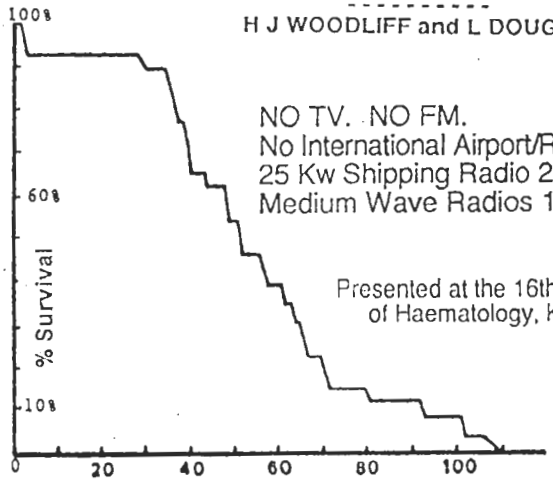
CANCER COUNCIL OF WESTERN AUSTRALIA

LEUKAEMIA AND ALLIED DISORDERS COMMITTEE

Tel: 219 331 28 January 1975 1st Floor, 220 St George's Tce PERTH WA 6000

SURVIVAL IN CHRONIC GRANULOCYTIC LEUKAEMIA

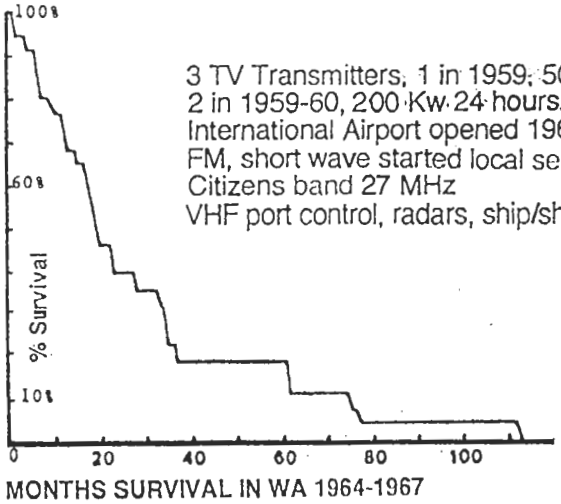
H J WOODLIFF and L DOUGAN



Presented at the 16th International Congress of Haematology, Kyoto, Japan in 1976

MONTHS SURVIVAL IN WA: 1951-1959

The Capital City, Perth was fewer than 500,000 people in this era, in a state of over 2,500,000 sq. Kilometres and 2,600 km. drive to the next similar city to the East, in Adelaide, South Australia.



MONTHS SURVIVAL IN WA 1964-1967

Cancer Growth - One cell doubles to two cells, two cells to four cells etc and this series, one plus one equals two, two plus two equals four, four plus four equals eight, eight plus eight equals sixteen, sixteen plus sixteen equals thirty two etc is the unique method by which cancer cells divide. It is known as exponential mathematics after description nearly 450 years ago by the Scottish mathematician James Napier who proved that the exponential basis of cancer and life growth is "e" or 2.71828. See next page.

Pages 19 & 20 are details of these complex interactions which explain the clinical results of treatment. The upper diagram depicts x-ray therapy alone, the lower when UHF precedes x-ray therapy.

When life first started on Earth we know that the atmosphere had no oxygen in it. The only possible power supply, which would permit growth, would be one which did not use oxygen (anaerobic) and simple sugars which would almost certainly have been available for fermentation called anaerobic glycolysis.

These steps utilise hydrogen ions (electrically charged hydrogen atoms) which migrate from reduced glutathione (symbol GSH, GSH) to form oxidised glutathione (GSSG + 2 H ions) which reverts to GSH + GSH. Because each ion associated with 2 phosphorous atoms 2P (equal to 4ATP) doubles to 4P (equal to 8ATP) with each revolution of the cycle.

Returning to the previous pages, you will see that this is part of the series two plus two equals four, four plus four equals eight etc etc. Steps +4 to +8 must therefore be the exponential reaction which powers cancer because it grows according to part of an exponential series. I have labelled it E-R_{ex} meaning the exponentially growing king of life or more prosaically the Electrical Reaction of ex-ponentiality. Page 21 shows why UHF, X-rays & G.B.A. all target E-R_{ex}.

X-Ray Therapy

Pages 20, 21 & 22 are crucial to understanding the difference between x-ray treatment and every other method of cancer treatment available in the world. It is the only method of treatment that will reduce the exponential growth of Steps +4 to +8 by the directly opposed effect of exponential kill. Page 20 is x-ray therapy in practice. The four symbols damaged and killed on Days 1, 2, 3 and 4 by x-ray therapy (a ball, half moon, a triangle and a star) represent the biochemical systems which are the direct targets of x-rays. During x-ray radiation the cell is dividing 1–> 2 –> 4 –> 8 etc. The x-ray kill of a colony of cancer cells is the reverse or an exponential decrease. Therefore x-rays directly kill the anaerobic system in which ATP production grows from 4 to 8 units.

Unfortunately human cancer is not quite so simple to kill. The explanation is blindingly obvious to every practitioner who has treated cancer with x-rays. Response is never the same between two individual patients with identical cancers because each has its own number of E-R_{ex} units per cell and some or all may be active from time to time. The next chapter will explain the problem and how 434 MHz Ultra High Frequency Radiowaves completely and permanently solves the problem of the variable response of human cancer to a course of X-Ray therapy.

Because x-rays kill exponentially it is impossible to express how resistant or sensitive cancer cells are to them other than from clinical experiences.

The term D_0 (pronounced "D" zero) is used to denote radiosensitivity. The D_0 number of a colony of cancer cells is that dose of x-rays which will reduce the colony (cell kill) by 1/e (approximately 37% of its original size).

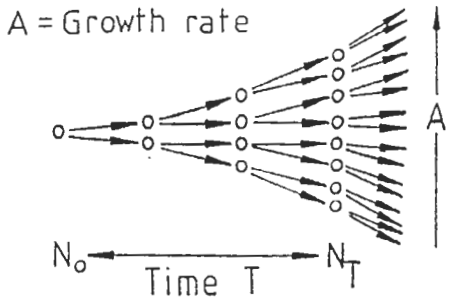
Hence a D_0 value of 1,000 rads describes a very radioresistant colony of cancer (eg a sarcoma). A D_0 value of radiosensitive cancer colonies is between 150 rads for a malignant lymphoma and 200 to 1,000 for cancers which become more and more resistant to x-ray kill.

When the D_0 value is 95-110 rads (after UHF) a proportion of each cell's targets are equally sensitive and these will all be killed by any x-ray dose above 110 rads: allowing for stray absorption each daily dose should be not less than 140 to 150 rads uniformly applied. A daily course of approximately 15 to 20 treatments will usually eliminate all cancer cells so treated. See Page 22.

SINGLE CELL LIFE

LIFE MUST HAVE STARTED AS A SINGLE UNIT.

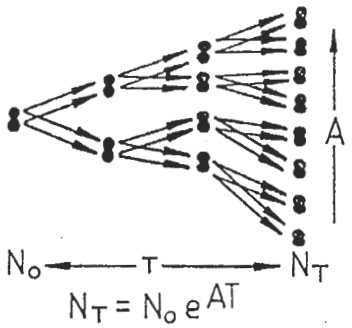
SOLE FUNCTION = REPRODUCTION



$$N_T = N_o e^{AT}$$

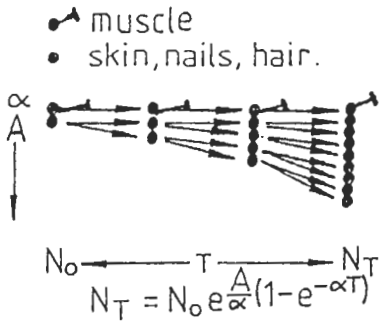
MULTI-CELL LIFE

THEORY



$$N_T = N_o e^{AT}$$

NATURE



$$N_T = N_o e^{\frac{A}{\propto}(1-e^{-\propto T})}$$

EVOLUTION OF MUTI-CELLULAR LIFE ALLOWS EACH UNIT TO PROVIDE SPECIAL FUNCTIONS IN ONE ORGANISATION.

$N_T = N_0 e^{AT}$ BECOMES $N_T = N_0 e^{\frac{A}{\propto}(1-e^{-\propto T})}$

REVERSAL USING U.H.F.

UHF

SEE NEXT PAGE

ALPHA, $\propto$ IS THE DECELERATION OR CONTROL DUE TO EVOLUTION

WHEN 2 OR MORE CELLS CO-OPERATE THEY CAN ONLY HAVE INDIVIDUAL SPECIAL FUNCTIONS IF THE WHOLE ORGAN CONTROLS EACH CELL'S REPRODUCTIVE DIVISION.

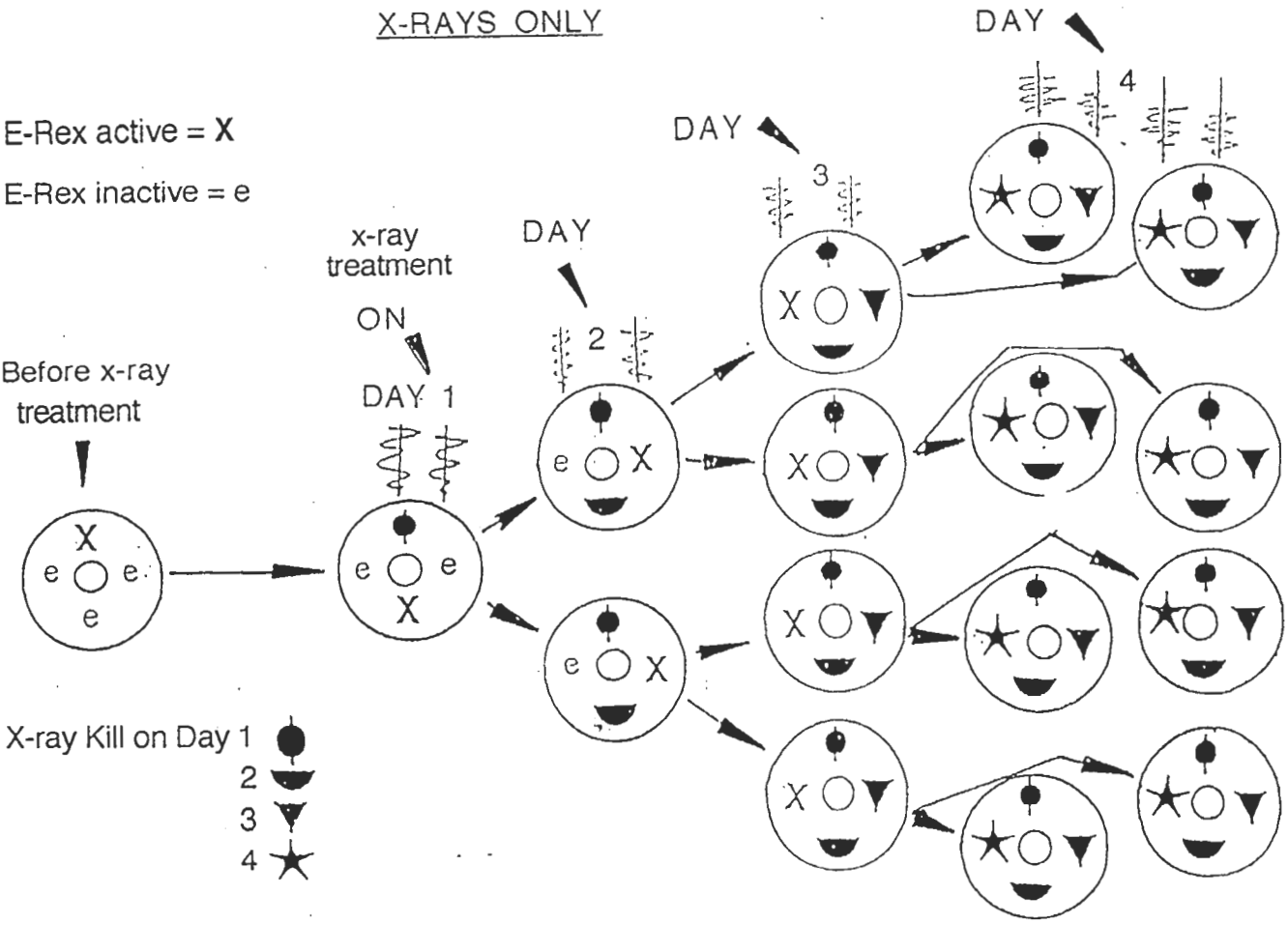
THE CAUSE OF CANCER MUST BE

FAILURE OF CELL CONTROL

CONTROL FAILURE ALLOWS A CELL TO REPRODUCE AUTONOMOUSLY

X-ray Therapy (XRT)

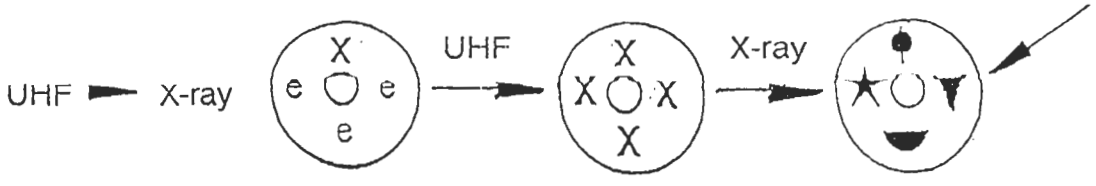
Example: Cancer cell with 4 targets (E-R_{ex}) per cell - typical of Non Hodgkin's Lymphoma cells.



The kill of X-ray Therapy on day one is inherited by the daughter cancer cells on day two. A second dose of X-ray Therapy when the next E-R_{ex} target is activated to replace the E-R_{ex} **X** killed kills any active daughter systems. The granddaughter cells thus inherit two or more items of damage and on the third day of radiation they acquire extra damage. Therefore when these cells divide as they do the great-granddaughter cells have at least three or more damaged units per cell. If the cancer only has four units which require to be killed to kill the cell the 4 doses kill the cell. Conventional Teletherapy (external beam XRT) rarely kills any cancer where the number of E-R_{ex} units exceeds 7 per cell.

Every cancer cell has at least one functional E-R_{ex} unit **X**: it's D_0 value is from 95 to 110 rads. The inactive units e have a D_0 value of at least 1,100 rads. 150 rads on day one will kill **X** and another e will activate. 150 rads on day two kills this active **X** and so on: UHF + XRT 150 rads for 20 days is adequate for all values of e. The UHF can be given on the 1st, 3rd and 5th days with XRT on days 1, 2, 3, 4 and 5 per week.

E-R_{ex} target activated: UHF before 130-150 rads X-ray Therapy = X-ray Kill on Day 1



E-R_{ex} inactive = e E-R_{ex} active = **X** **X-ray Therapy**

THE UHF & X-RADIATION TARGET

Because $N_T = N_o e^{A/\alpha(1-e^{-\alpha T})}$ → GROWTH → $N_T = N_o e^{AT}$

+ 434 MHz

GOMPERTZ ← EXPONENTIAL FUNCTION → PURE

and $N_R = N_o (1 - (1-e^{-D/D_o})^x)^y$ → KILL → $N_R = N_o e^{-D.y/D_o}$

+ 434 MHz

THEREFORE BOTH RADIATIONS KILL A COMMON TARGET which must be cancer's exponential growth system ——— $E\text{-}R_{ex}$

ANAEROBIC CARBOHYDRATE METABOLISM
THE ELECTRICAL REACTION OF EXPONENTIALITY

Reactions involving Glycerose. ATP is Adenosine tri-phosphate (=energy)	Phosphorus content:	Total energy Used — Created +
Step 1: 1 glucose —> 2 glycerose	Nil	− 2 ATP
Step 2: 2 glycerose + 2 phosphoric acid (2HP) —> 2 glyceraldehyde phosphate (2GP)	+ 2P	+ 4 ATP
Step 3: 2GP + 2HP + 2 Reduced Glutathione (2GSH) —> 2GS-diGlycerophosphoric acid (a glutathione complex) + 2H		
Step 4: This splits into 1 oxidised glutathione (GSSG) + pyruvic acid + 4H ions + 4P	+ 4P	+8 ATP
Step 5: GSSG + pyruvic acid + 4H ions —> 2GSH + Lactic acid		Nil

$E\text{-}R_{ex.}$ (or "X")

X-RADIATION TARGET

Phosphorus & Sulphur.

GBA's prevent interchange between GSSG and GSH

Note A: Overall energy produced is..... + 6 ATP

B: 1 doubling to 2 can be binary OR exponential (Naperian) mathematics, but 4 doubling to 8 can only be exponential mathematics. Since life exclusively grows by an exponential mathematical function, Steps 2, 3 and 4 must be the creation of life.

C: Because Step 1 requires energy the exponential increase of ATP from Steps 2 to 4 is "hidden" and therefore ignored by conventional biochemists.

Madam Curie's associate LINDT confirmed and proved that X-rays ONLY IONISED GASES.

Lindt shows that "The absorption which a slab of matter exerts on a beam of X-rays is independent of the molecular aggregation, and solely depends upon the atomic constituents of the substance. This is particularly the case with compounds of sulphur and phosphorus."

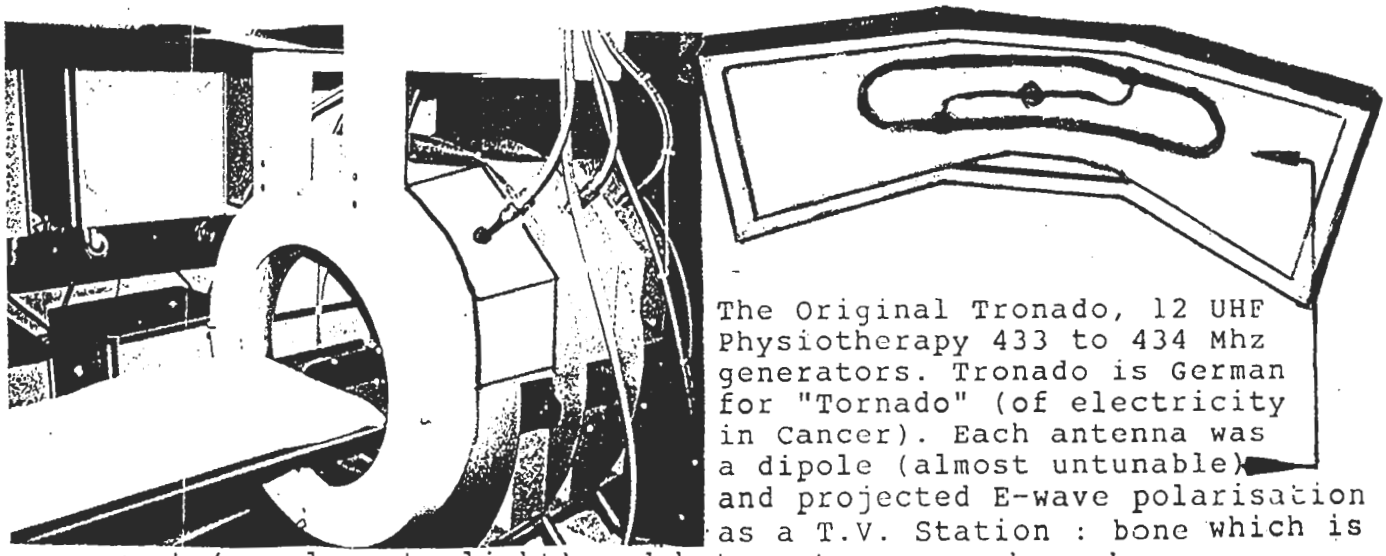
The equations opposite on page 21 have been used to find the value of x (the number of ER_{ex} units in the extra-nuclear cancer cells' contents) as shown on pages 11, 13, 14, & 49. As depicted on page 20 U.H.F. Radiowaves immediately stimulate "e" units to active "X" units,& "e" units will tolerate 10,000 rads (Centi-grays) as van den Brenk and I have demonstrated on pages 130, 131 and our references 16 and elsewhere.
In the second equation when all U.H.F. activated "X" units are killed by any uniform X-Ray field exceeding 120 rads & provided adequate U.H.F. has been administered then 15 to 20 treatments will kill all cancer in the irradiated areas.

IN THE SECOND EQUATION, X (or ER_{ex}) becomes "1". Without U.H.F. X varies from 3 in very sensitive cancers, (e.g. a lymphoma) to 20 or more (e.g. 23 as the Schwannoma on page 11 : totally resistent to X-ray therapy after 4,600 rads it grew unchecked: xompared with cure after U.H.F. and 3,300 rads X-Rays, (over 22 daily treatments.)

CONCLUSION.

U.H.F at 434 MHz followed immediately by 150 to 170 rads, (to all cancer areas) always reduces N_0 (cancer load) to N_R: a Zero treatment residue after total X-Ray doses below 4,000 rads. Since N_R is ZERO then all cancer is curable without sequelae.

FUNDAMENTAL UNDERSTANDING OF UHF Applications.



The Original Tronado, 12 UHF Physiotherapy 433 to 434 Mhz generators. Tronado is German for "Tornado" (of electricity in Cancer). Each antenna was a dipole (almost untunable) and projected E-wave polarisation as a T.V. Station : bone which is transparent (as glass to light) and hot spots occur where bones are directly under the skin (knee-cap, elbows, feet, hands, skull when bald) which heat the skin and some burns resulting at elbows etc. 200 watts per antenna is the safety limit, hence 12 units.

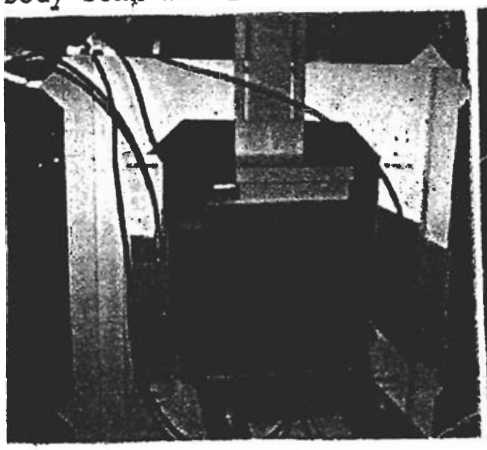
Monitoring the reflected signal strength in the Farady Cage allows the UHF operator to effectively distribute the radiation on to the cancer. Maximum sensitisation for local or whole body X-Ray is assured.

Sleep appears to be an atavistic remnant of a very radio-active world.

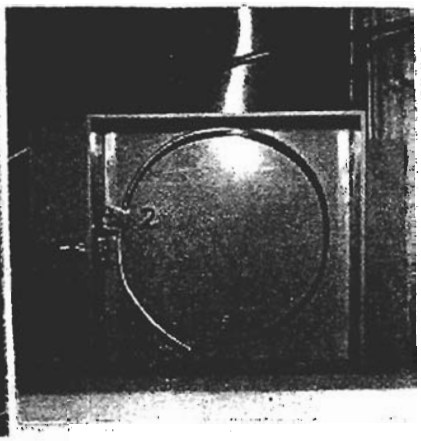
1. Pages 130 to 133 demonstrate that oxygen exclusion with a tourniquet on, a limb will tolerate X-ray doses from 1,700 to 10,000 rads (17 to 100 Grays) undamaged.
2. Pages 134 & 135 prove that fully oxygenated tissues (especially the Central Nervous System) may be damaged or die above 600 rads (6 grays). AEROBIC GLYCOLYSIS CAN BE DESTROYED. CONCLUSION - X RADIATION LESS THAN 600 rads AS A SINGLE DOSE IS VERY UNLIKELY TO BE A CARCINOGEN (cancer creating).
3. Single cell life will tolerate very large doses of X-rays when active. As it approaches death by over dosage it recovers completely by total INACTIVITY. So INTELLIGENCE OF E-Rex closes all activities by "sleeping" until it has regained full X-Ray tolerance.

The Therapy couch and the improved Treatment Antennae, from 1989 onward.

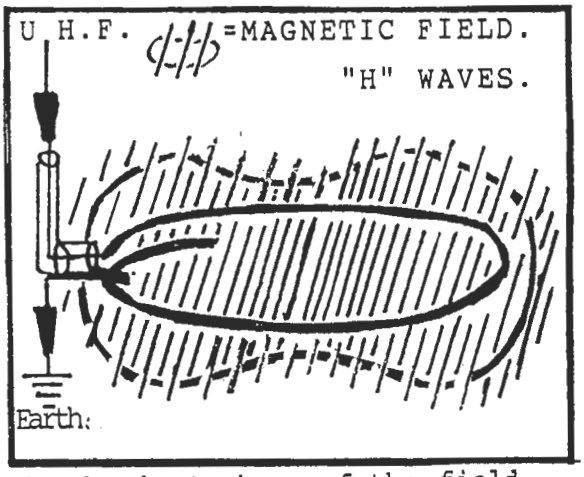
All timber construction, adhesive fastenings, the only metal parts being cables and antenna. The patient's couch and antennae boxes were polypropylene. The couch was driven by a continuous plastic rope powered by a remote electric motor. A full body scan was 1 minute for a 2 metre patient.



4 circular antennae, axes aimed at patient's body centre, each connected to a generator by Co-axial cables. The frequencies were staggered from 433·9 to 434·9. Each in a closed plastic box.

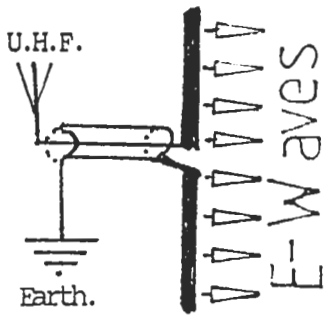


1. Co-ax cable input.
2. Clamp to adjust diameter.
3. Tail movement, up, down, sideways for tuning to minimum reflected power to it's generator.



The doughnut shape of the field. Using 4 antennae it creates an uniformly distributed treatment throughout the 10 to 12 cm. "slice" of the patient. The "tail" connection of the co--axial cable is earthed.

434 MHz. has been chosen by European Countries for medical (mainly surgical) and physiotherapeutic treatment. It directly stimulates damaged tissues to increase their repair rates and promotes more perfect restoration of the normal components which have been injured. For this reason the antennae shining the U.H.F. on the injury are of the Di-pole type and reflectors behind the di-pole considerably add to the intensity of the beam and it can be directed where desired.
The diagram to the right summarises this transmission of radio wave energy. The electrical energy from this type of antenna is called E-wave, travels in straight lines and as T.V., when intense will heat the area treated for physiotherapy. As it travels in all directions a perfect Faraday cage is essential.



The design of a loop antenna creates a magnetic field, the axis of this field is at right angles to the ring at its centre. This, called an H-wave in contrast to a Di-pole's E-wave rays. It can be made to emit maximally by tuning each antenna to its UHF generator by 1: adjusting its diameter and 2: adjusting its 'Tail' until measurement records 50 Ohms impedance and the reflected power back to the generator is minimum. With skilled tuning and powered with 500 watts forward power the reflected power is below 10 watts. With this magnetic field irradiating the cancer the reflected power increases and this indicates proof of treating the correct sites.

When treating with glucose blocking agents followed by U.H.F. the body areas need be in excess of the proven cancer, according to the clinical details.

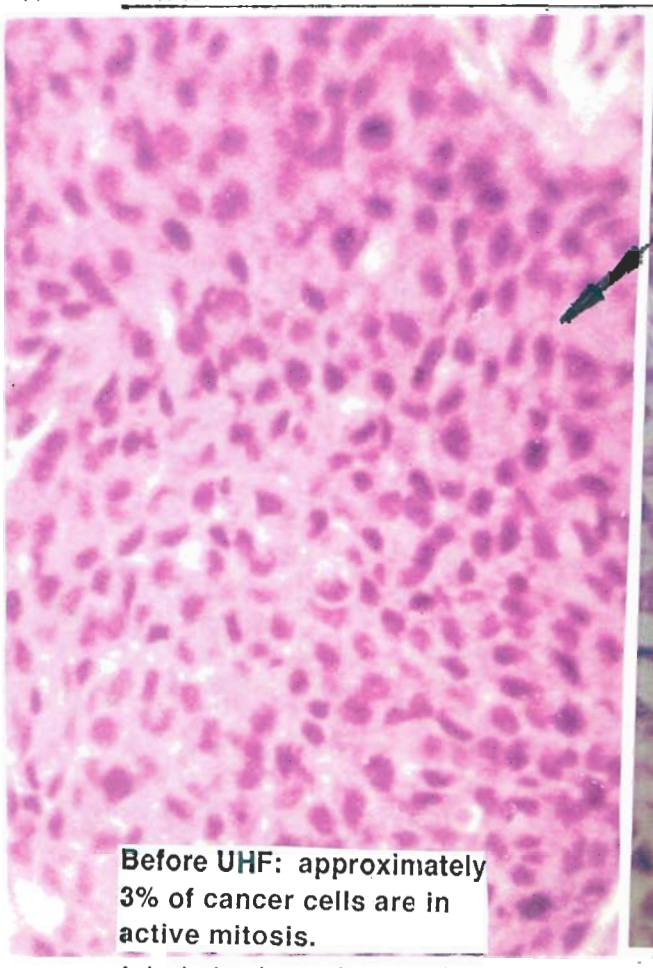
When treating with U.H.F. before X-Ray therapy, radiotherapy planning will already have delineated the areas and volumes containing the cancer. The bottom of page 21A is very relevant and for this method a FIELD STRENGTH METER WITHIN THE FARADAY CAGE was necessary for the U.H.F. Operator to give the radiowaves at dosages proportional to the mass of cancer at that particular site.

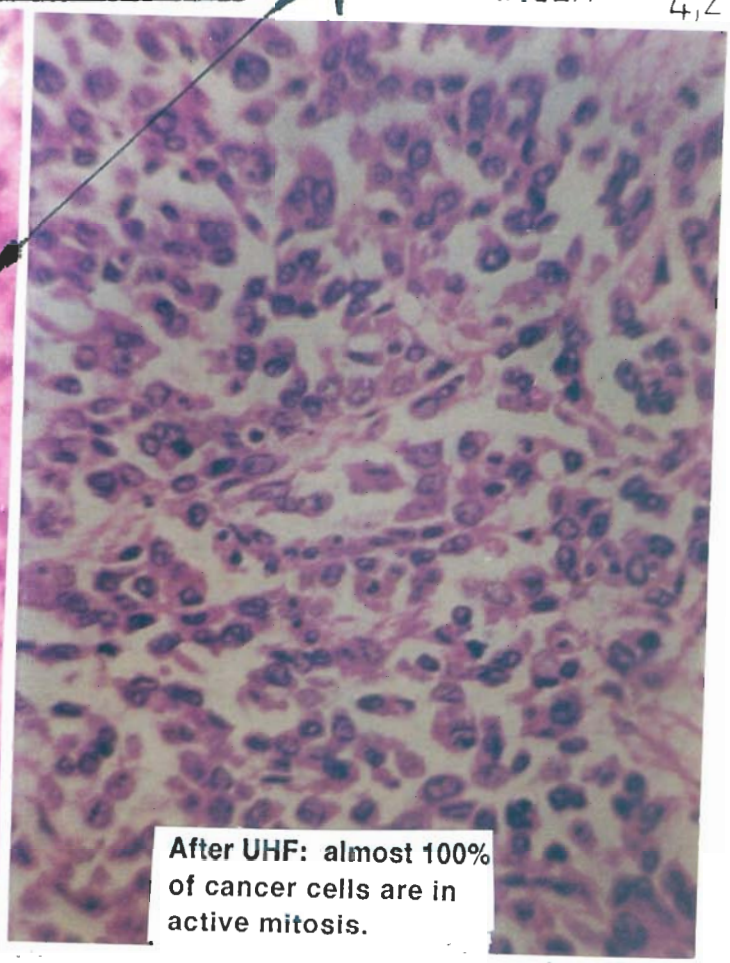
The "Doughnut" shape of these circular antenna H-wave fields has been plotted and measured by electronic engineer (Mr. W. M.) who has supervised and installed this equipment over many years. The accuracy of his magnetic field mapping has been confirmed by the Director of West Australia's head of Medical Physics (Mr. R. F., M.Sc., FAIP., FRACR., F.I.R. (Hon.).





4;1 GENETICALLY CONTROLLED PERFECTION = CANCER 4;2





A lady had an ulcer on her breast due to a squamous type cancer present for at least two years and it was very slowly growing. This biopsy was taken at approximately 9:30 am in the morning. Fewer than 5% of the cells are actively dividing. She was then exposed to 20 mw/sq cm UHF radiowaves at 433 MHz. Five hours or so later a second biopsy was taken from the same site in the same patient.

UHF will negate Gompertzian slowing so that full exponential growth is forced. Since x-rays have maximum kill when ALL the cells are active then ALL cells are harmed by x-ray therapy. Without activation by UHF inactive cells can be totally undamaged with huge total dose of x-rays (up to 10,000) rads. Hence the sequence of UHF before x-rays is the only effective method. X-rays before UHF is valueless.

With temperature rise less than 1°C, 434 MHz will change Gompertz to full exponential function. Alpha α or a, the deceleration of acceleration A is removed and growth is at maximum potential rate

or $N_T = N_o e^{\frac{A}{a}(1-e^{-aT})}$ to $N_T = N_o e^{AT}$

N_o = number of cells, Time Zero.
N_T = number of cells, Time T.
A = growth rate when maximum.
e = 2.7183.

GLUCOSE BLOCKING AGENTS BEFORE U.H.F.

CONTROL OF FERMENTATION: ALTERNATIVE TO X-ray therapy.

In a closed fermentation bottle there is a slow rise in the Ethyl alcohol concentration until a limit is reached. Fermentation ceases because the anaerobic glycolysis system is stalled. The first and most obvious method of controlling cancer is to use alcohol as a therapeutic agent. This was trialled in Europe and the regime using the original U.H.F. machine in Western Australia (trade name "Tronado", indicating that it created an electrical TORNADO in each cancer cell which killed it) was to give alcohol orally. Approximately 60 patients were treated, with several CURATIVE results, all were excellently palliated but the controversy, by academics who refused to understand the bio-chemistry, led to its abandonment in the Institute of Radiotherapy. Pages 35, 36,& 37 are examples of otherwise untreatable cancers using this Non-toxic method.

In 1968 L. L. Madison showed the basis for this method which was used by an East German Clinic and by Dr. I. Mueller in West Germany when this Tronado Machine was being developed for human cancer use. In the Journal of Advanced Metabolic Disorders, 1968, vol. 3, pages 85 to 109, his work "Ethanol Induced Hypoglycaemia" made success effortless. Hypoglycaemia means low blood glucose levels.

The diabetic glucose lowering drug, INSULIN is given intra-venously, dose proportionate to the cancer body load. 2.000 units were used to cure the Breast cancer recurrence in patients, pages 55,70&72. The cancer burns up this insulin because it is blocking anaerobic glycolysis of E-R_{ex}, and in so acting destroys itself. A perfect Glucose Blocking Agent. Rarely, a patient may require intravenous glucose, so hospitalisation is essential.

BIRTH DEFECTS : PROBABLY ALCOHOLIC SPERM & OVUM POISONING.

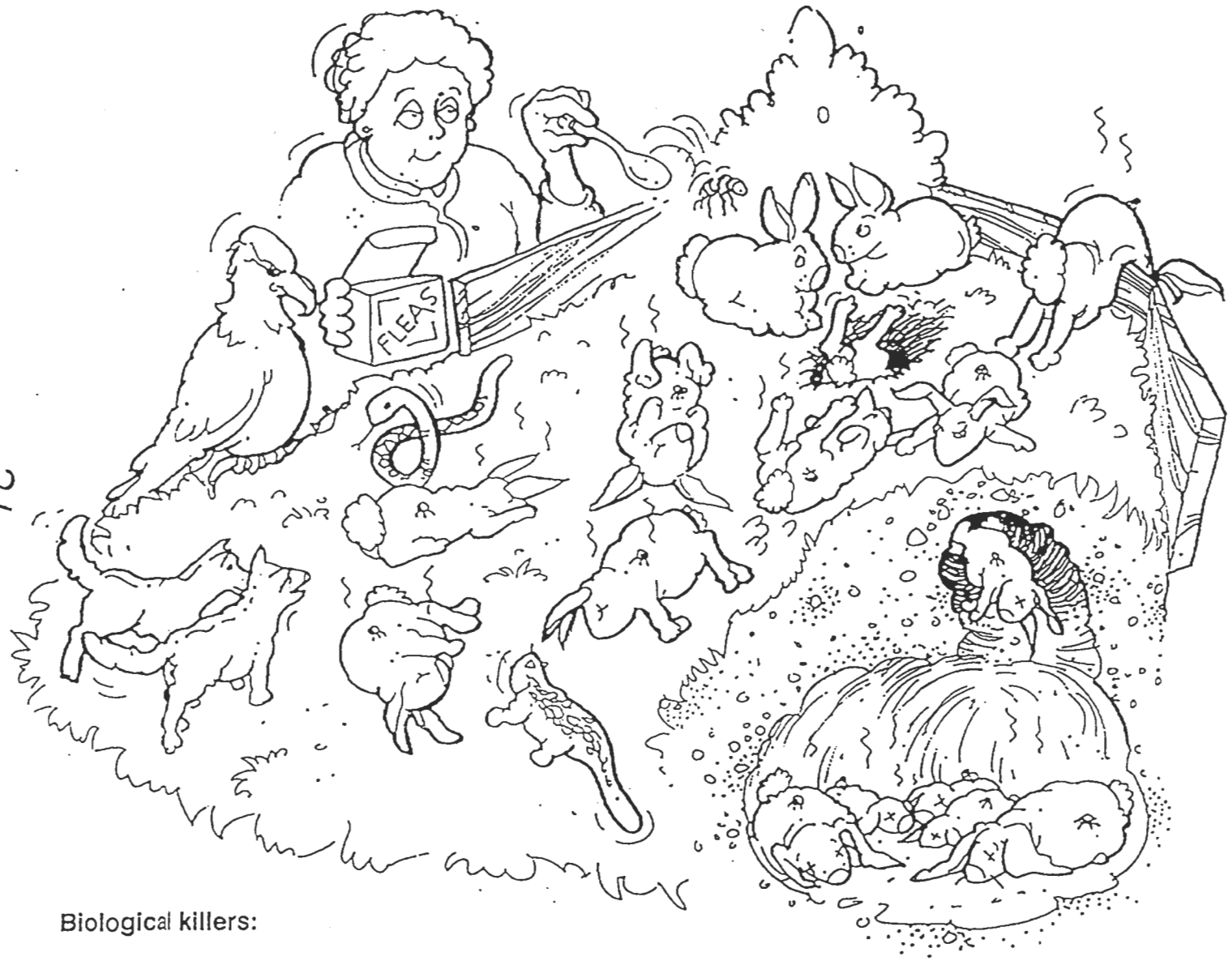
The Medical Journal (AUSTRALIAN), 1922, volume 2(14); pages 606 to 608 by Collins & Turner, "6 Children affected by Maternal Alcoholism" is relevant. Jones & Smith, The Lancet, vol. 2, pages 999 to 1001, 1973, "Recognition of the Foetal alcoholic syndrome in early infancy" and on pages 1267 to 1271 "Patterns of Malformations in offspring of chronic alcoholic Mothers".

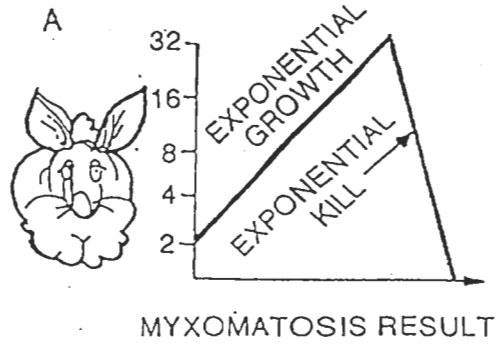
Defects in the newborn are usually attributed to genetic inheritance. They are, in the absence of abnormal gene studies or strong family history, all due to the known effects of alcohol on glucose metabolism. From the results of treating with Insulin or alcohol before U.H.F. it is certain that both damage E-R_{ex} (anaerobic) and aerobic Glycolysis. Therefore incorrect gene interpretation by aerobic glycolysis followed by faulty control of foetal cell division by anaerobic Glycolysis causes cleft palate, hare lip and spina bifida and other defects at birth. Bibliography references,23 & 28.

Thalidomide deformities are explained similarly, because they ONLY occur when Thalidomide is taken during foetal life. As the foetus grows the limb buds are controlled by the chain of aerobic reactions following the chain of genetic evolutionary reactions, as the embryo changes from primitive to modern evolved genes. Thalidomide must interrupt this control series so that foetal progressive gene interpretation is broken and irreparable. Dr. J. McCredie has identified the target of thalidomide in the foetal Neural Crest. See Osteology, 1997, vol.6(2), pages 59 to 69.

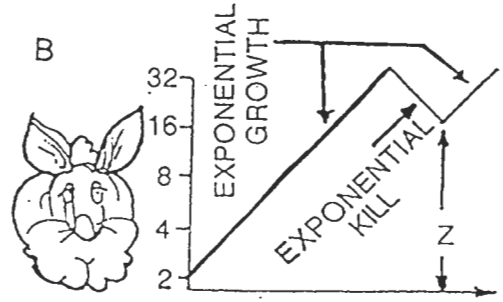
Illustration on page 23 shows why the electrical Reaction creating exponential growth is the direct target of X-rays and serendipidously 434 Mhz U.H.F. activates it to make all equally sensitive.

Two methods of treatment become possible. U.H.F. before low dose X-rays as shown on P. 24 depicts the similarity to rabbit elimination using the biological agent of the virus Myxomatosis. Illustration, page 25 depicts the totally different results of surgery, which is an all or nothing method.

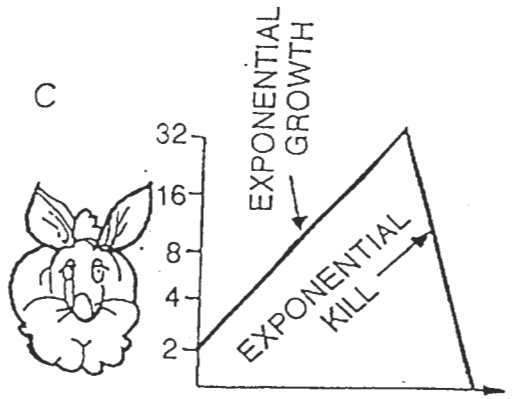




MYXOMATOSIS RESULT



X-RAY THERAPY RESULT



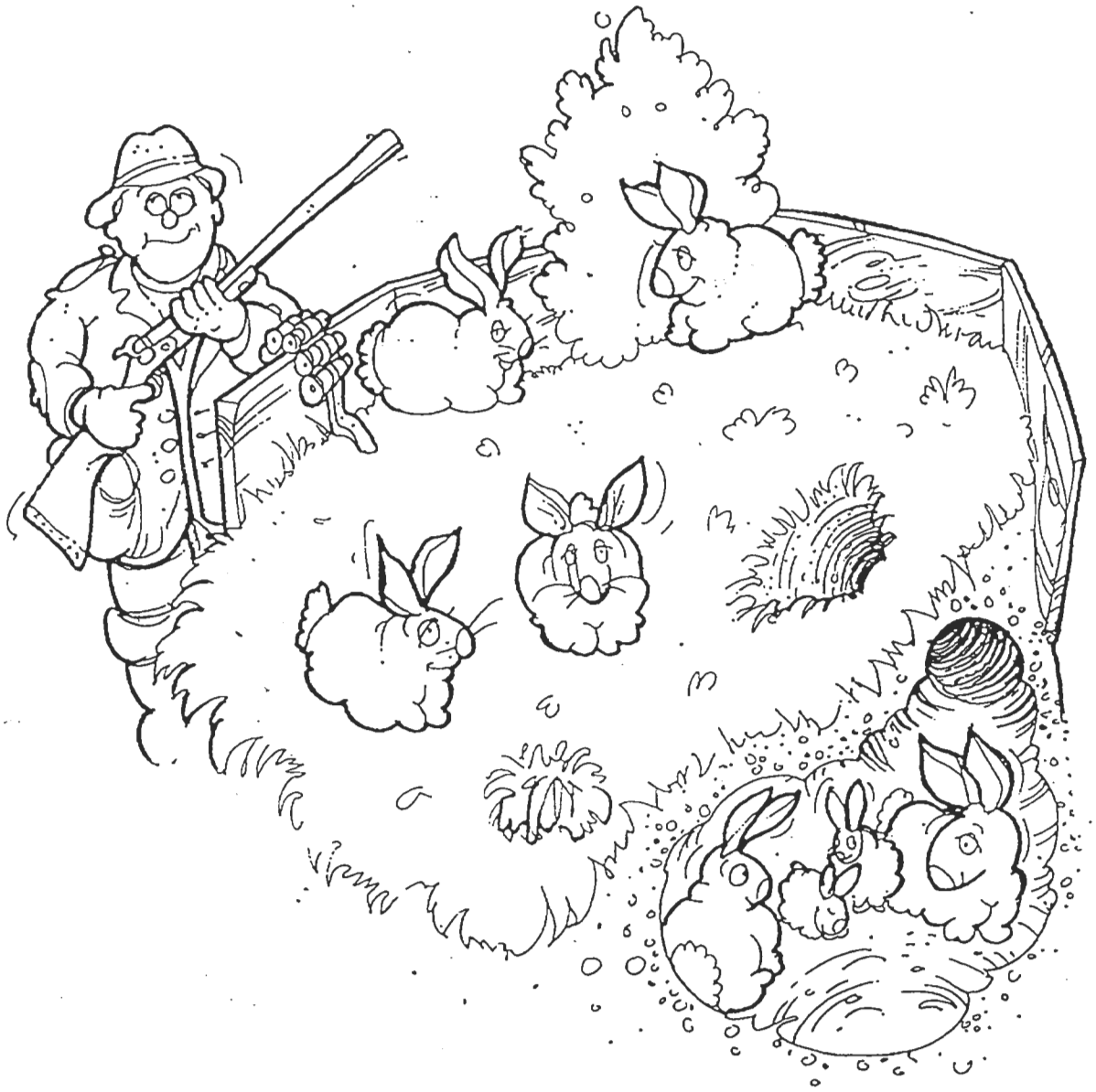
UHF + X-RAY THERAPY RESULT

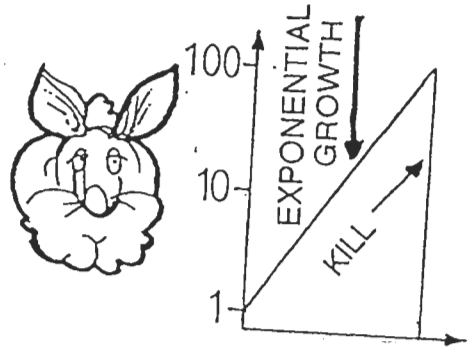
Biological killers:

A - Myxomatosis: upper right diagram. Fleas are infected with myxomatosis virus which only attacks rabbits. Both grow exponentiality therefore within a confined area ALL RABBITS are infected - cure, even in the burrows. Exponential slows ▷ Gompertzian Exponential growth.

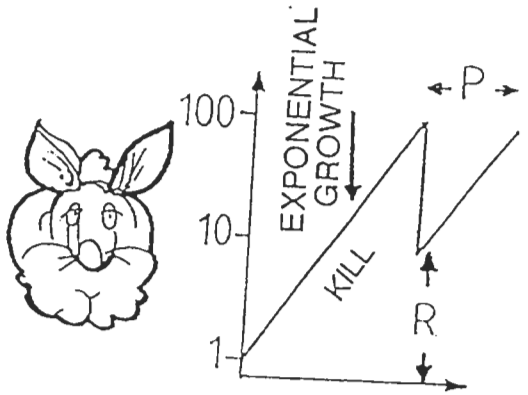
B - X-ray Therapy (XRT): The only direct biological killer of active cancer cells - those asleep in the burrows are unharmed (Z) as in middle right diagram. This explains why x-rays etc are true exponential killers only when all the cancers cells are activated just before irradiation by x-rays.

C - UHF (434 MHz Ultra High Frequency) activates all "sleeping" cancer. An increase in cancer cell kill per x-ray dose exceeding 1,000 times.





Exponential Growth slows with age and obeys Gompertzian Exponential growth.



$$P = \frac{T_2}{.693} \log_e \left(\frac{1}{R}\right)$$

SURGERY: Surgery has a NON-EXPONENTIAL response: all or nothing - cure or only temporarily relief. A farmer and his gun versus the rabbits! P is the prolongation of life after surgical removal of proportion R of total cancer. T_2 is the "doubling" time for this patient's cancer (30-40 days is typical for many cancers to double in size). After surgical removal of half of the cancer load T_2 is the prolongation of life gained.

Fertility: Male, Female

Variabilities between Treatment Methods

1. The production of sperm in the fertile male (spermatogenesis) is continuous. The body cells which replicate to create sperm are called spermatogonia and line tubes in the testis. The mature sperm contains a nucleus with one half of the man's total chromosomal content (so called reduction division) and a similar reduction of the chromosomal numbers occurs also in the early stages of formation of the ovum. When they recombine the correct chromosomal number is restored.

2. In addition to extruding half its chromosomes the ovum matures by also extruding every E-R_{ex} system. These extrusions from the developing ovum are called polar bodies. They are compacted and by extrusion into the abdominal cavity they are destroyed by the immune reaction cells which normally patrol the peritoneal cavity. The abdomen is lined with and its contents are all covered with peritoneal tissue which has unusual properties in that it can tolerate most foreign objects and infections and satisfactorily control them. The polar bodies are completely destroyed and the mature ovum has no E-R_{ex} system in it.

To make the position clear, E-R_{ex} is the nomenclature I have adopted for the electrical system of exponential growth. It is electrical because the anaerobic glycolysis (burning of glucose without oxygen) generates the exponential energy using hydrogen ions in the cycling between GSSG and 2GSH and back to GSSG.

3. Whatever dosage of UHF is applied to the mature ovum or its maturation stages in the ovary there is no target for UHF. Therefore fertile women are not at danger to their "eggs" from UHF, and x-ray therapy is therefore not sensitised. For this reason the dose of x-ray therapy to create an artificial menopause by irradiating the ovaries is at least 1,500 to 2,000 rads total dose. That dose cannot be reduced by the use of UHF beforehand. For this reason the treatment of the female pelvis in fertile women by conventional x-ray therapy may create a temporary menopause until a future generation of ova are produced but thereafter they may not be sterile. As a consequence some of the most superlative results from UHF before x-ray therapy are in the otherwise untreatable situation where the malignant fluid from ovarian cancer occupies the whole abdomen.

When Professor Ned Hornback visited our practice some 30 years ago (which was in the grounds of St John of God Hospital, Subiaco) I explained this to him. He then asked to see any patients I had treated. I showed him two, one of whom was a senior nursing sister from the order of nuns in that hospital. It was over a year since I had treated her whole abdomen which had been grossly distended with cancer and fluid. He was unable to fault her and his comments to Drs Nelson, myself and the Nun's Mother Superior were that nowhere in the entire practice of cancer therapy in the United States was any similar result to be observed. His reward for introducing 434 MHz by himself and by Dr Homayoon Shidnia, who ran the entire radiotherapy services for the public and private system of Indianapolis, was for both of them to be severely warned against using a frequency not approved by the Food and Drug Administration.

When Professor William Caldwell from Wisconsin visited me a few years later I showed him this Sister Superior who was still alive and well after my treatment and he ordered UHF therapy equipment to my specification for the department of Human Oncology at the University of Wisconsin in Madison. His reward was to be taken out on a shooting weekend by the two senior members of the department of oncology and was found dead in his cabin in the morning. Despite protestations of his widow no forensic evidence was ever submitted to prove that he had died of carbon monoxide poisoning as a result of his having had a fault in the flue from his cabin heater overnight or of an head wound from a shooting accident.

4. The male situation: Spermatogonia having reduced the genetic nuclear numbers to half the normal and the sperm's cytoplasm with the E-R_{ex} energy units.
The ovum's nucleus fills with all the nucleoli – pieces of the nuclear material which have a special function (probably gene division) and without them certain parts of the fertilised ovum cannot be reconstructed. See Drummond, Dec. 1990, Med Hypotheses,6:1219-1298,on "Functions of the Nucleolus and the Nucleus".

5. The sperm is the only source of the E-R_{ex} energy units which when fertilisation occurs provide the power source for the full development of the foetus and placenta until the latter can extract oxygen from the maternal bloodstream.

6. There is no attachment of the foetus to the mother until the placenta is complete. Until the placenta is extracting oxygen from the mother's system then the foetus lives entirely as a result of the power source of anaerobic glycolysis through the E-R_{ex} systems. Until oxygen is available for aerobic glycolysis from the mother there is no activation of the aerobic glycolytic units (which are situated in the mitochondrial tubules in the cytoplasm of the cell) and these then build the remainder of the adult from the childhood tissues.

7. As a result the male testes after puberty have many active E-R_{ex} units in every spermatogonia and spermatozoa and therefore are extremely radiosensitive. An x-ray dose of approximately 200 or more rads may kill all the active ones. A single dose may cause sterility. The application of UHF (and indeed every single frequency of radiowave pollution including 50 Hertz mains and lower up to the highest Giga Hertz range of the latest mobile phones) will make testicular damage increasingly likely with or without lower and lower dosages of x-ray therapy.

For this reason the treatment of seminoma of the testis, a cancer of the sperm cell producing cells, is extremely x-ray sensitive and nine out of 10 patients can be permanently cured with x-ray therapy only. The addition of UHF would almost certainly eliminate all failures but my experience with these tumours is such that I cannot prove this point.

The practical fact is that when using uniform x-ray therapy fields for such diseases as lymphomata, Hodgkin's disease, leukaemias and the pelvic malignancies, the testis cannot be shielded adequately and all patients should be warned of possible sterility. This rarely troubles them because of the age group which develops these diseases. If it does then a simple lead block in front of and behind the testes is easily arranged and need be no greater than approximately four or five centimetres anteriorly and posteriorly. Shielding from UHF is ineffective and impossible because the UHF/cancer "coupling" is by an electromagnetic field which penetrates all areas outside an iron sealed box.

Summary for Males:

Both GBA's before UHF and UHF before x-ray therapy may result in sterility. The presently reported reduction in sperm count is, in my opinion, entirely due to radiowave pollution and the two most sensitive organs to be affected amongst the human species for these side effects are the pair of male testes.

Summary:

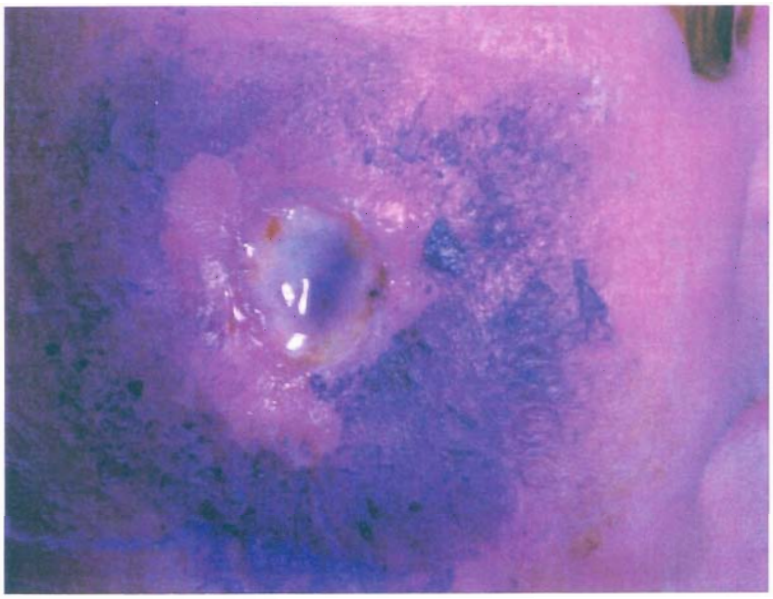
The reasons for the sexes is thus absolutely transparent. Each sex provides half of the genetic chromosomal material but E-R_{ex} are only present in the sperm and the nucleoli are only present in the ovum. To create children with an ovum any stem cell of similar origin provides E-R_{ex}, nucleoli and the missing genes: the sperm can be replaced!
The tolerance of the female generative anatomy to x-ray therapy appears to me to be an atavistic x-radiation tolerance capacity so that the female generative organs could have reproduced and nurtured safely their progeny to birth in a highly radioactive world. The human vagina and uterus will tolerate dosages from radioactive materials between 10 and 20 times that which the male will tolerate. This has to be allowed for in conventional x-ray therapy planning in females whilst in males the danger from dysfunction as a result of stray radiowave pollution must be enhanced by low x-ray tolerance in his sexual apparatus.

1974-76: 937 PATIENTS - SQUAMOUS CELL SKIN CANCER - See reference #40 from my Bibliography

	Conditions of Growth and/or Therapy			
	Spontaneous Human Skin Cancer Treated by Conventional Normothermic X-rays	Spontaneous Human Skin Cancer Exposed to 434 MHz		Spontaneous Human Skin Cancer Exposed to Non Electrical Heat Before or After X-ray Therapy
		Before X-ray Therapy	After X-ray Therapy	
Observed Growth	$N_T = N_o e^{\frac{A}{\alpha}(1-e^{-\alpha T})}$	$N_T = N_o e^{AT}$	Not measured	Not measured
Treatment Response	$N_R = N_o (1-(1-e^{-D/D_o})^x)^y$	$N_R = N_o e^{-Dy/D_o}$	$N_R = N_o (1-(1-e^{-z.D/D_o})^x)^y$	$N_R = N_o (1-(1-e^{-z.D/D_o})^x)^y$
Value of Z Value of x	1 2.0 to 8.0	1.0 to 1.2 1	1.0 to 1.2 2.0 to 8.0	1.0 to 1.2 2.0 to 8.0
Total X-ray Dose	3,400 to 4,200 rads	2,800 to 3,600 rads	2,800 to 3,600 rads	3,800 to 4,200 rads
Clinical Effects on the Cancer	47 failures in 300 Patients 100% Moderate to severe skin reactions with some morbidity	2 failures in 600 Patients No morbidity: 10% with moderate skin reactions	5 failures in 5 patients All retreated successfully but increased morbidity	5 failures in 32 patients Increased skin reactions and morbidity compared with isolated X-ray Therapy

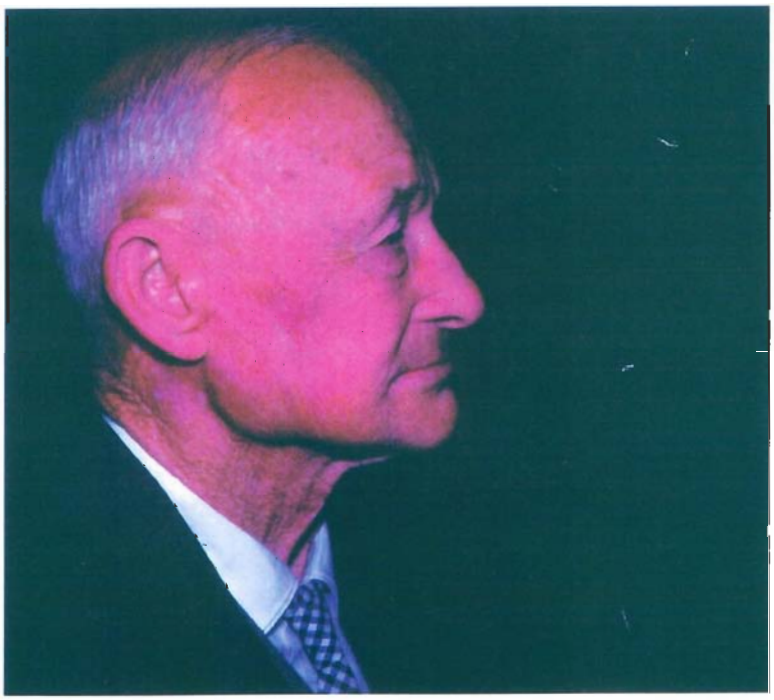
The Z number is a 1.2 times increase in cell kill at the limit of 'heat' tolerance of 41.8 ^{0}C.

The following pages reveal the results of treating skin cancer. B.C.C. is a locally destructive Basal Cell Cancer or popularly RODENT ULCER.



A BCC of the right cheek penetrating to the parotid gland. A "natural" Pavlov's fistula!

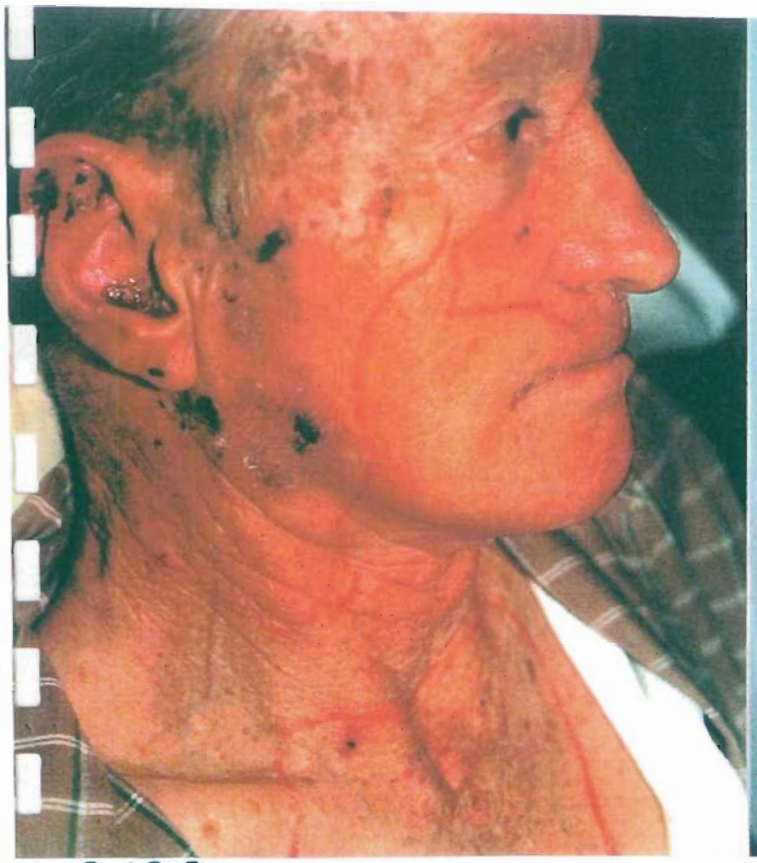
Treated with UHF before 220 kv radiation, 1.5 mm Cu HVL. 160 rads per treatment; 24 treatments.

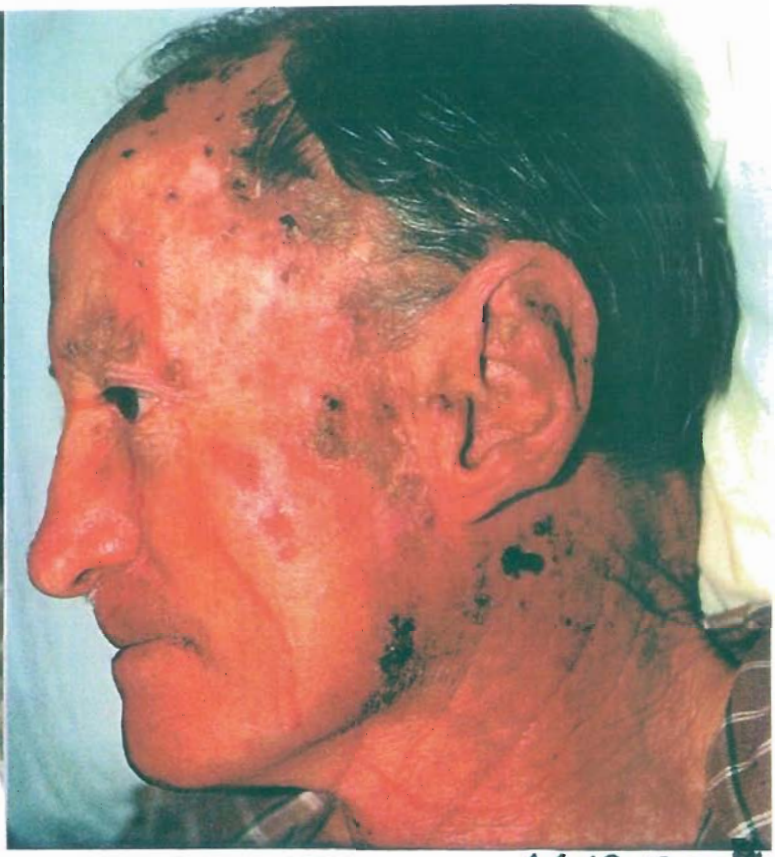


Three years later: eliminates the BCC and stimulates repair.

Skin cancers which may spread widely are called Squamous cell cancers in short "scc".

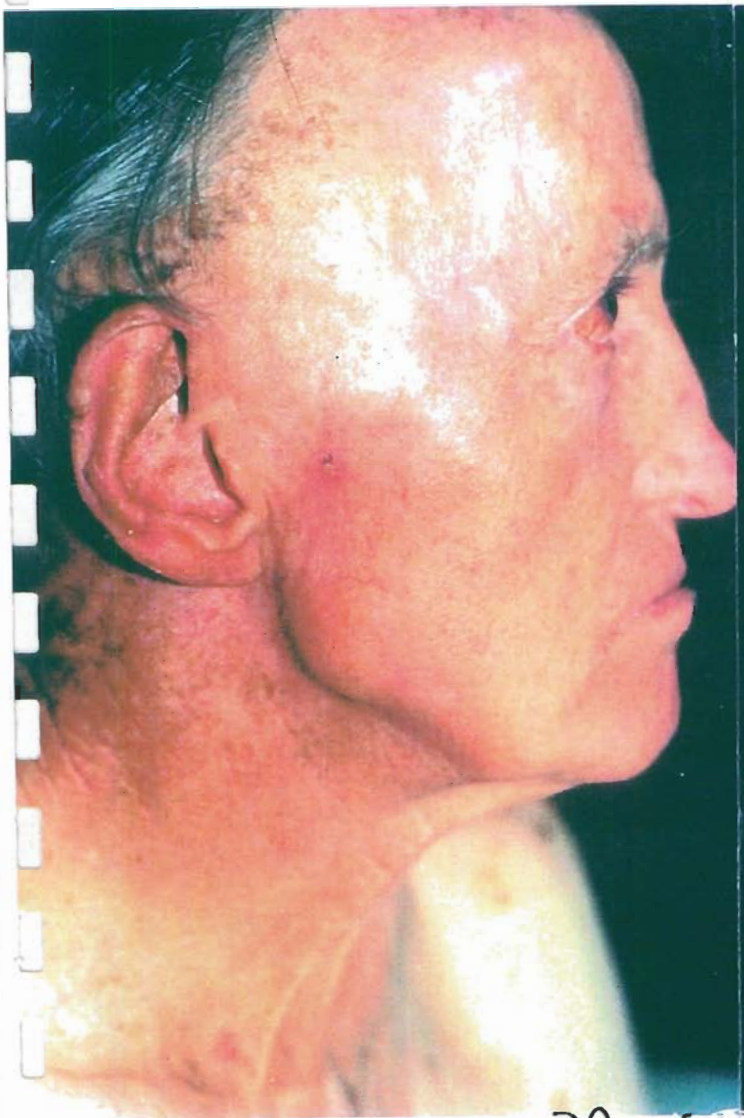
Typical BCC/SCC lesions on a prospector's face

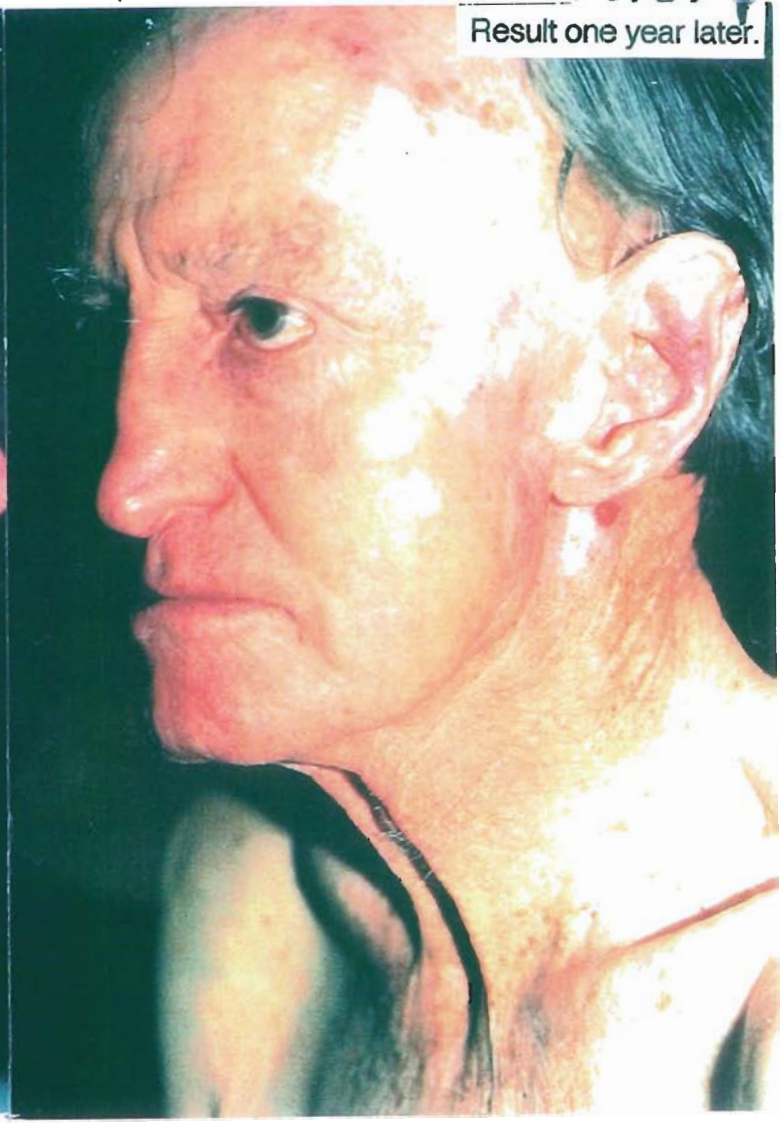


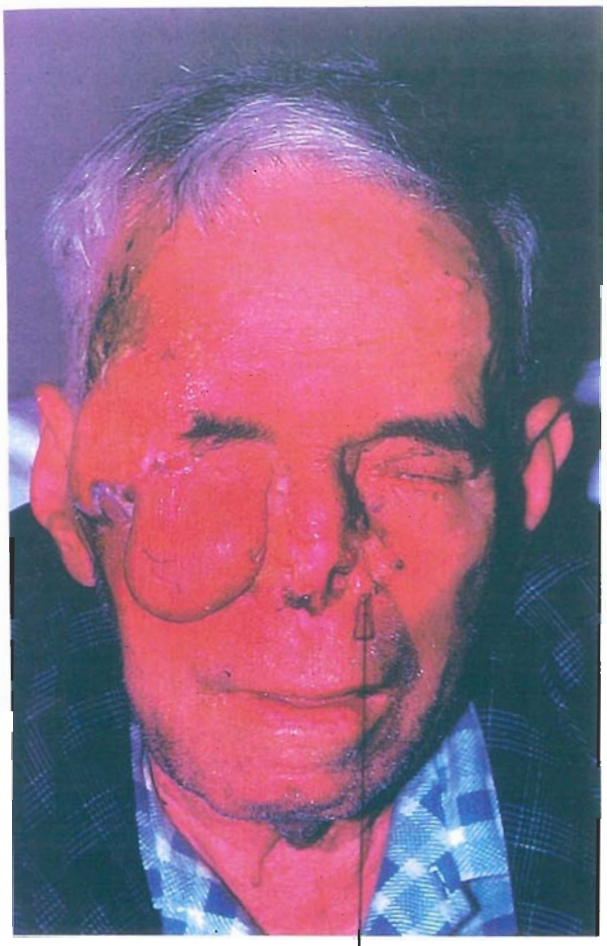


/8/88: 10 doses of UHF and 150 rads of superficial x-ray therapy. 16/8/89

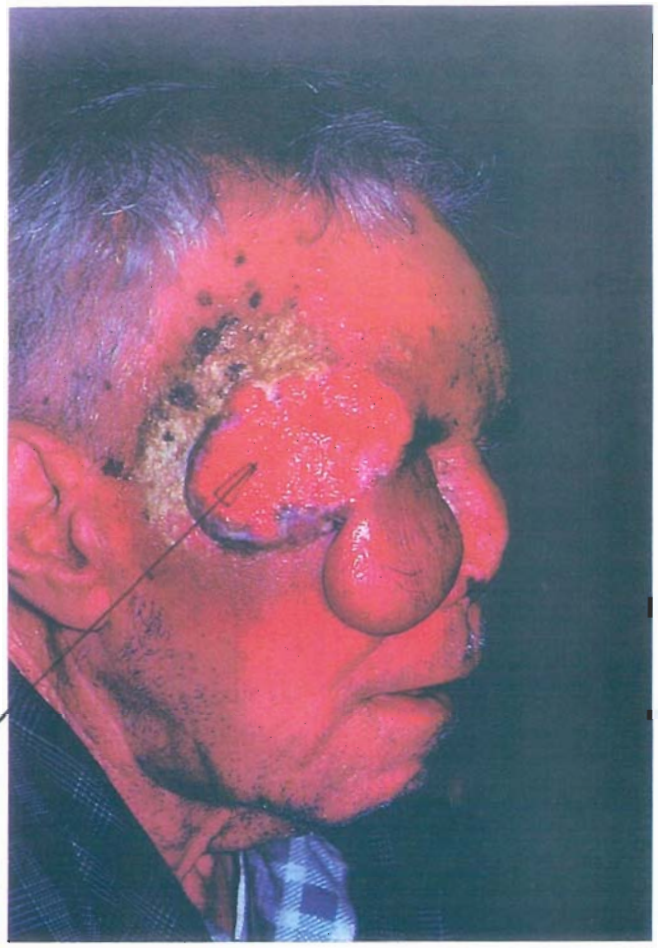
Result one year later.



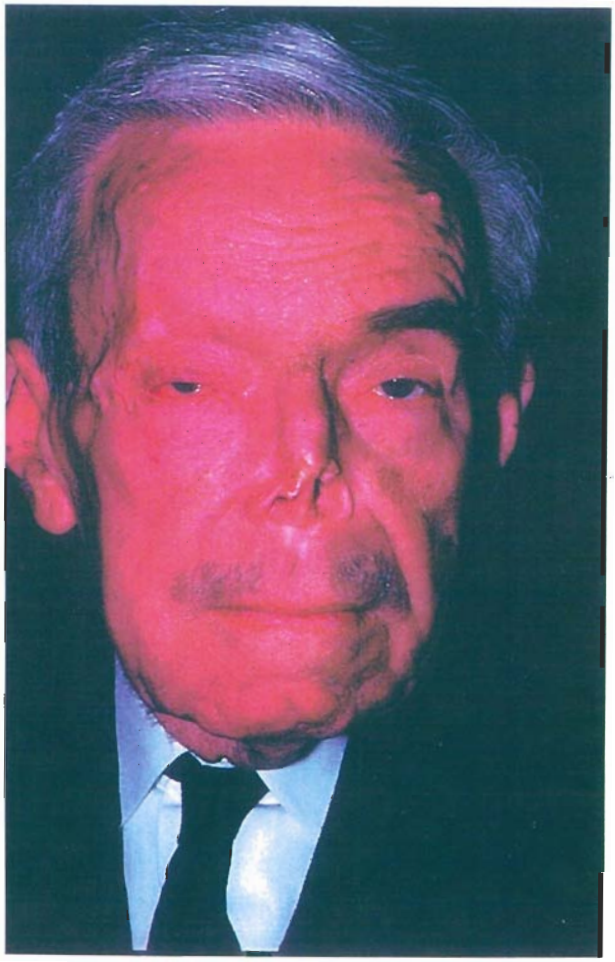




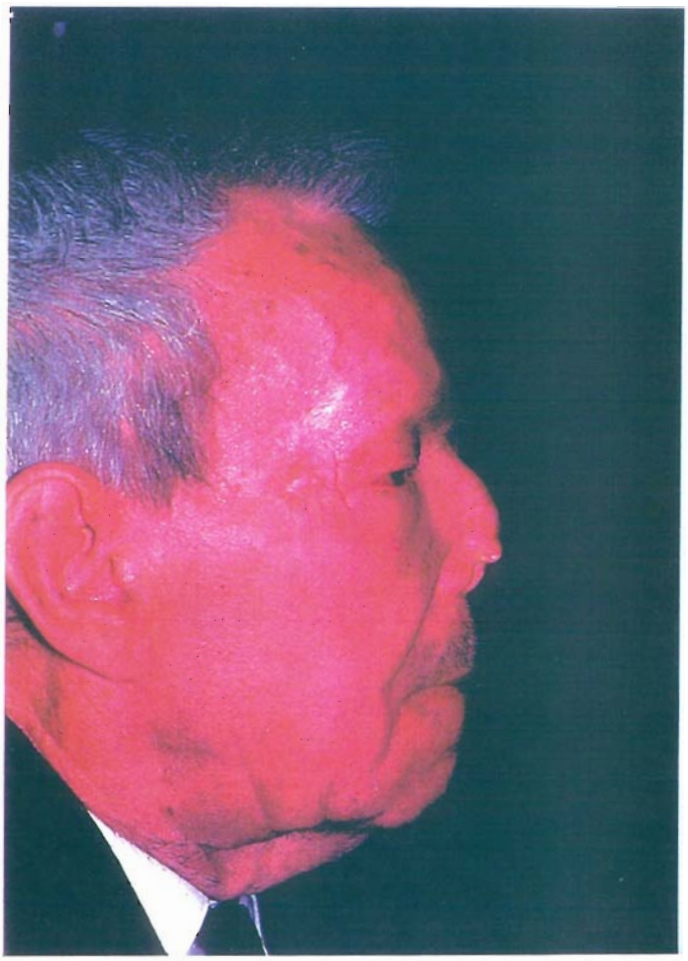
7·10·74



ypical BCC/SCC: UHF before 160 rads daily
150 kv x-rays, total 3,200 rads.

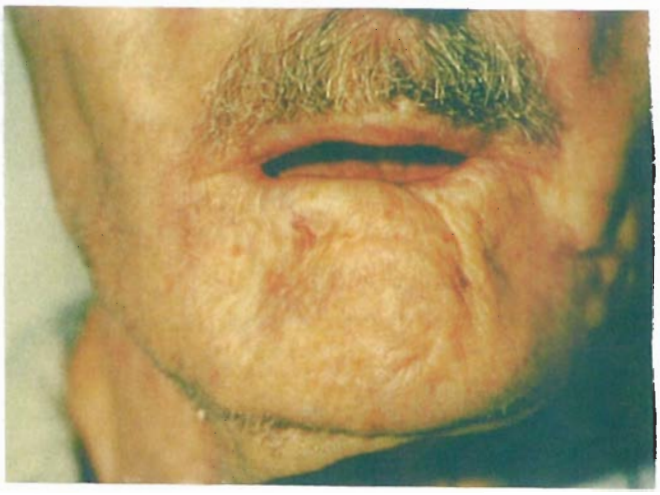


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A



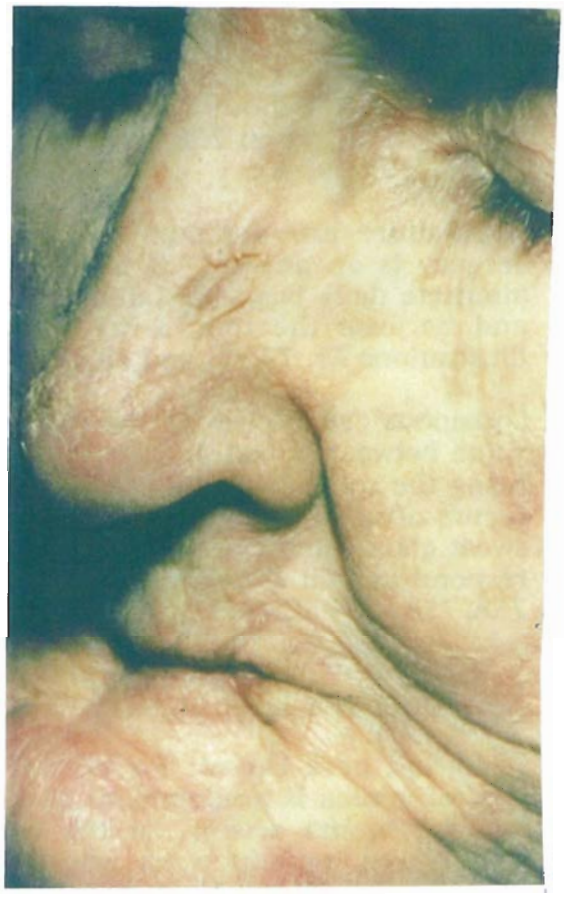
B

A: A squamous cell cancer of the lip. Two previous surgical excisions, recurrence is now obvious.

B: Microwaves followed by a low daily dose (160 rads) of x-rays led to complete disappearance of the lesion. The scar of his previous surgical excisions is now obvious.



A



B

An elderly lady who has had multiple surgical attacks on both lips, a recurrent rodent ulcer on the tip of her nose and a squamous cell carcinoma on the left side of her nose. At age 89 she declined further surgery.

B: Three weeks after a combined course of microwaves and low dose x-ray therapy shows healing of these lesions. She developed many more lesions (the early phases of which are shown on other areas of her skin in these photographs) and over the next five years all were treated similarly.



A: A large squamous cancer of the wrist on an elderly patient which was exposing the extensor tendons.



B: The sideways view to show its extent.



C: Two weeks after the completion of a course of microwaves and low dose x-ray therapy the skin is healing, the malignancy has disappeared. The tendons are now covered with skin which has regenerated as a result of the stimulating effect of the 434 MHz on healing and he had a useful pain-free hand again. This patient lived in the gold fields and was not seen again but his general practitioner informed me three years later that he was still prospecting.





A: A patient with a very large skin graft applied to the left forehead to try and control multiple rodent ulcers and squamous cell cancers. This failed and nodular recurrences are obvious throughout the graft area together with a 3 cm by 3 cm recurrence between the eye and the ear. Proven by biopsy.

B: The whole area was treated with UHF radiowaves and low dose x-ray therapy and this shows the complete disappearance of these malignancies throughout the grafted area and below it on the last day of treatment.





A: An elderly lady with a facial pigmented rodent ulcer in the front portion of it and a squamous cell carcinoma in the rear half of this lesion. Under her chin she has a benign melanoma. There are several secondary cancers in the lymph glands under and behind the left jawbone. Treated with combined low dose UHF radiowaves and x-ray therapy.

B: At the completion of treatment the malignant nodes in the neck which were a death warrant without this therapy have disappeared. The primary lesions have healed. Pigmentation persists. Three years later she had no evidence of recurrence and was extremely pleased with the results of therapy.



Figure A: A lady exhibiting the classic appearance of widespread mycosis fungoides. This is a malignant cancer starting in the subcutaneous tissues which progresses to widespread ulceration. This lady had had two years of therapy with conventional cytotoxics, beta therapy, X-ray Therapy and despite temporary remissions her disease had continued to extend over the whole body. Most of her body had to be covered with absorbent material as most of these areas were weeping serum or bleeding regularly.



Figure B: A single treatment with 434 MHz microwave radiation four hours after ingesting 200 ml of 40% ethyl alcohol. Her blood alcohol level was between 110 and 125 mg per 100 ml during and immediately after treatment. All her malignant ulcers improved, the majority healed and this photograph was taken one month after therapy. The disease went into remission for six months and she was retreated on three occasions keeping her disease palliated for a further two years. She disliked being treated when "drunk" and returned to have chemotherapy. She died approximately four weeks after this.

Pasteur and Warburg have proven that Cancer is powered by the fermentation of simple sugars in the exclusion of oxygen and this is technically called "anaerobic Glycolysis". Fermentation is controlled by TWO factors. oxygen and the concentration of ethyl alcohol in the brewing chamber. This is the common alcohol of drunken behaviour.

A Doctor who was a Registrar in the Institute of Radiotherapy and Oncology who also was a part-time Assistant to the Coroner's Office analysed the incidence of cancer in Autopsies of victims of traffic whilst they were crossing the roads in Western Australia. They also all had their Blood Alcohol levels recorded.

FINDINGS: Of more than 1,000 autopsies in elderly accidental road deaths two-thirds had high alcohol blood levels and were known or suspected as alcoholics, NONE had CANCER. Cancer in deaths who had zero alcohol levels had a 6% incidence of cancer, unsuspectedly.

CONCLUSION: Alcohol; as Pasteur knew, that fermentation was self-limiting and stopping as the concentration of alcohol increased! A BLOOD LEVEL OF ETHYL ALCOHOL ABOVE 100 mg. per 100ml of blood is an excellent anti-cancer "DRUG". Cancer can be cured when this alcohol level before UHF is given. This method ceased because Patients wished to drive their cars home.



Figure A.A patient with Mycosis Fungoides. This had been treated previously with X-Rays, Beta ray therapy and several courses of cytotoxics. She also had visceral deposits of this cancer refused whole body treatment, desiring only treatment to her skin ulcer. A single week (Mon, Wed,Fri.) using details as on B, page 35,then given treatment elsewhere and lost sight of.

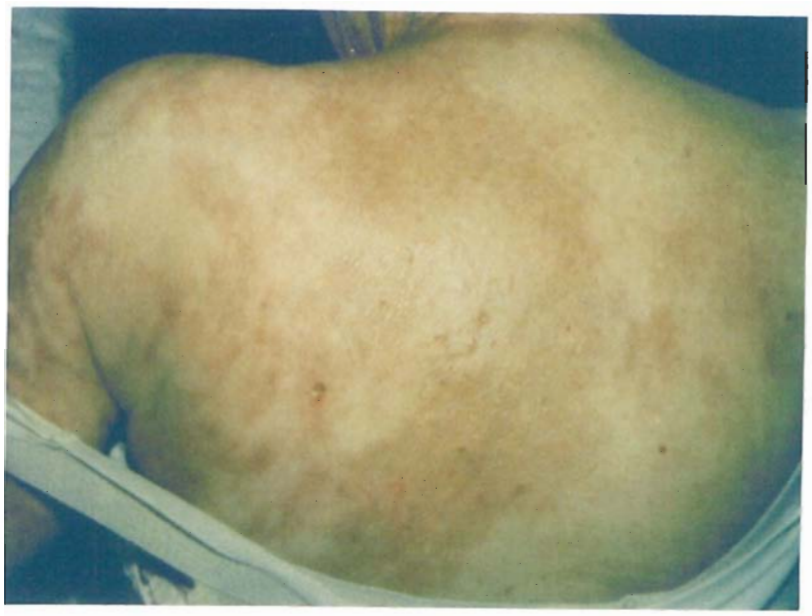
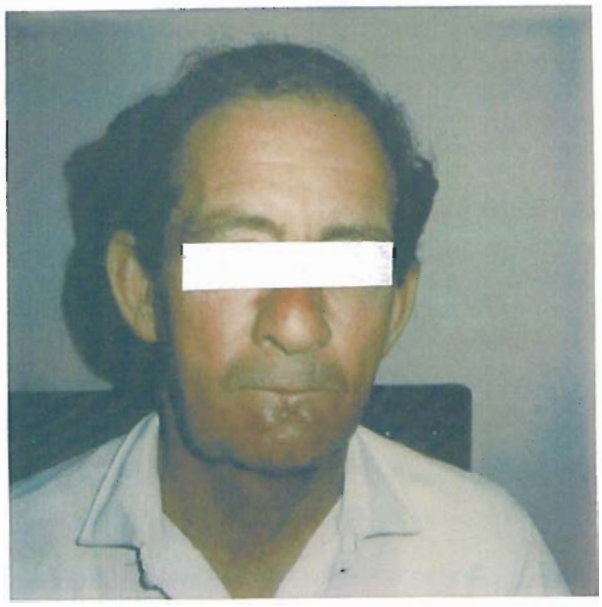
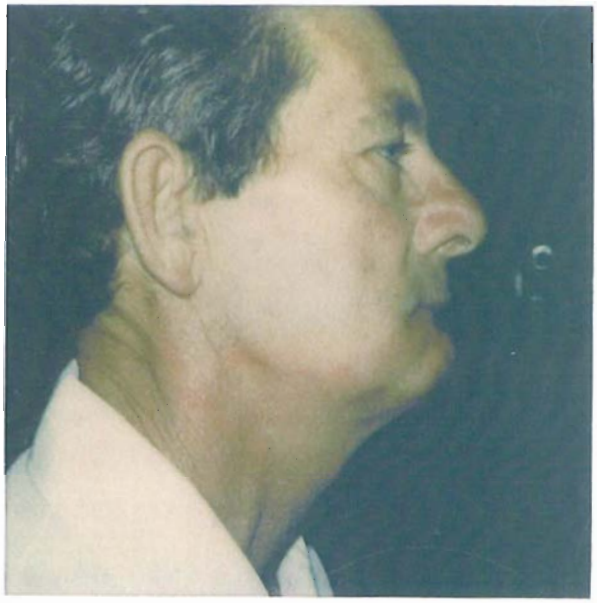


Figure B. The remarkable palliation after three treatments in one week. This patient expressed great admiration for these improvement in her skin healing, but declined to have alcohol therapy again as she normally abstained. This method is ineffective, with little or no response,in chronic alcoholics.

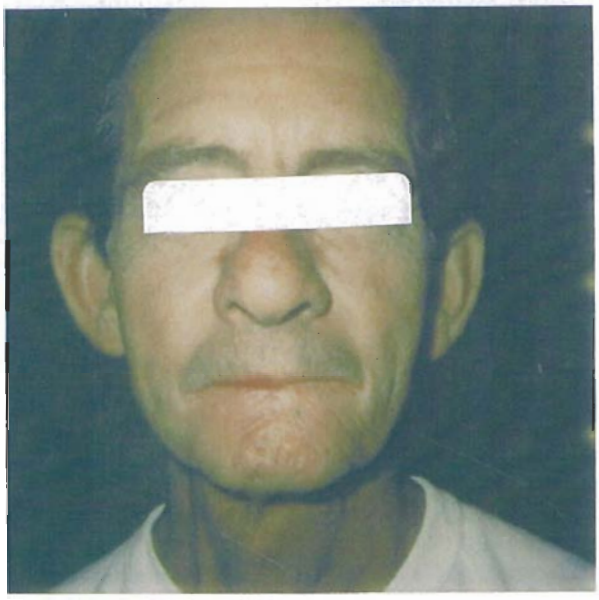
Recurrent Squamous Cell Carcinoma of the lip



A second recurrence of a squamous skin cancer of his lower lip - two previous surgical attempts to cure both failed, as did a course of superficial x-ray therapy.

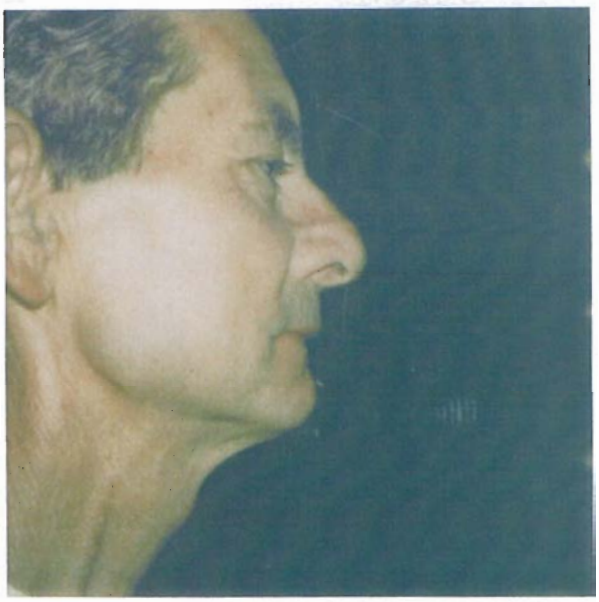


Side view to show gross facial swelling due to multiple secondary cancer in the lymph nodes in his neck. Without effective treatment this is his death warrant.



One year after treatment complete disappearance of the primary lesion in his lip.

TREATMENT: Single day only, as on page 35. 1 hour after oral alcohol, was placed within the ring of U.H.F. antennae around his lower jaw, Total 2,400 watts for 45 minutes. No complications. His only possible treatment, as he declined further surgery & X-Rays.



Side view one year after treatment shows complete disappearance of all the metastatic cancer in his neck. He was clear of disease and survived more than 10 years without recurrence The only possibly alternative method of treatment would be hyperbaric oxygen which would require removal of the teeth in his lower jaw and be only half as effective as 434 MHz UHF radiowaves plus x-ray therapy.

BCC RIGHT SIDE OF LOWER LIP, INVOLVING THE ANGLE OF THE MOUTH

Before treatment: A three year history of a slowly growing cancerous ulcer. Biopsy shows characteristics of both a rodent ulcer and a squamous cell cancer. Photograph taken 12 June 1986.



One year after combined radiowaves and low dose x-ray therapy shows an excellent result. The radiowaves stimulate self controlled repair of normal tissues - controlled ER_{ex} activity. Photograph taken 25 August 1987.





Figure A: A rodent ulcer which has penetrated the floor of the nose infiltrating the lip and creating a fistula between the nose and the back of the lip.



Figure B: Three months after the finish of combined microwaves and X-ray Therapy treatment course. The extent of the defect is obvious. This was repaired with a small plastic surgical operation to give an excellent cosmetic result. Unfortunately photographs are not available but he survived many years without recurrence.

MYCOSIS FUNGOIDES



A

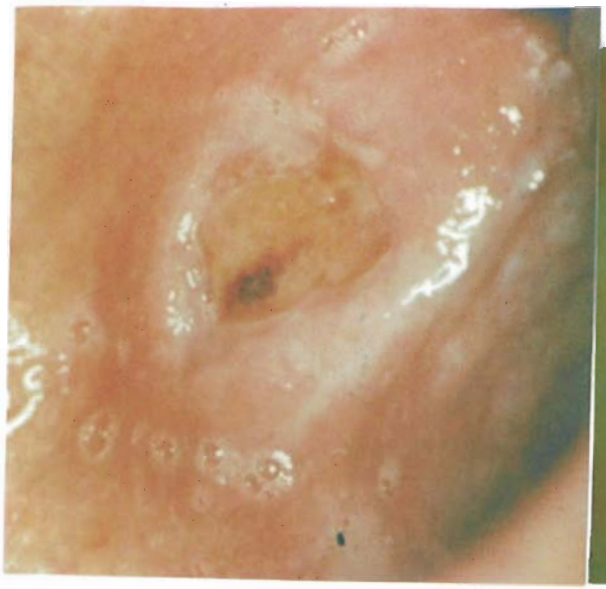


B

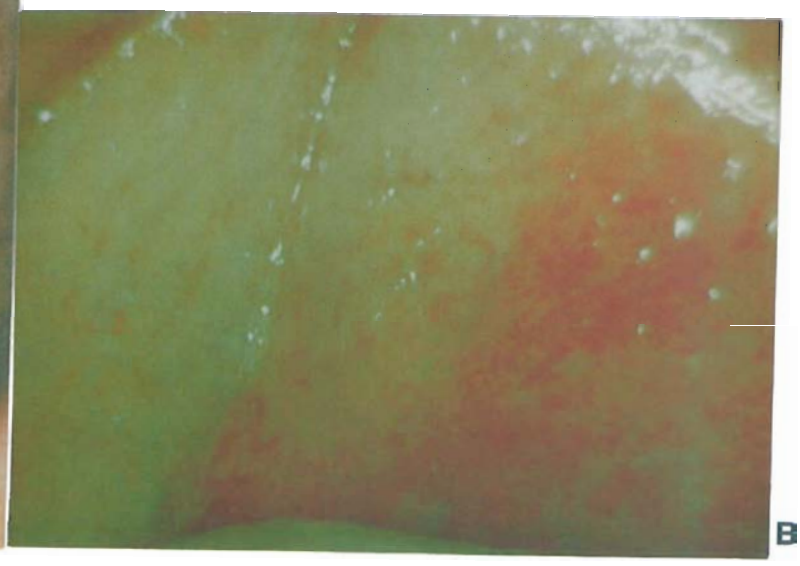
A. A patient suffering from a malignant subcutaneous sarcomatous type of cancer called a mycosis fungoides. Previously treated with several regimes using electron therapy and cytotoxics. It was refractory to these conventional treatments. Photograph taken 10 July 1984.

B. Complete disappearance of the mycosis in the treated area four months later. Photograph taken 1 November 1984.

NON HODGKIN'S LYMPHOMA



A



B

A. A malignant non Hodgkin's lymphoma of the hard palate. There were also multiple deposits in lymph nodes and bone marrow. He had entered an acute lymphoblastic stage of his disease and chemotherapy had been discontinued as ineffective. Photograph taken 10 January 1985.

B. Three 15 day courses of anaerobic glycolytic blocking agents and UHF radiowaves produced healing of the palate. His leukaemia went into complete remission. At the completion of the third course of treatment when his peripheral blood had become normal he had another bone marrow biopsy, which was normal. Photograph taken 13 November 1986.

AVOIDING AMPUTATION OF LEGS OR OTHER SURGICAL METHODS

Radiotherapy is NOT safe to use at full doses on limbs: UHF before low dose x-rays allows it to be done safely.

1. Multiple squamous cancers of legs. 31 January 1979.
2. After treatment: A - Right leg, B - Left leg 8 February 1980

47

1



2A



2B



NON HODGKIN'S LYMPHOMA



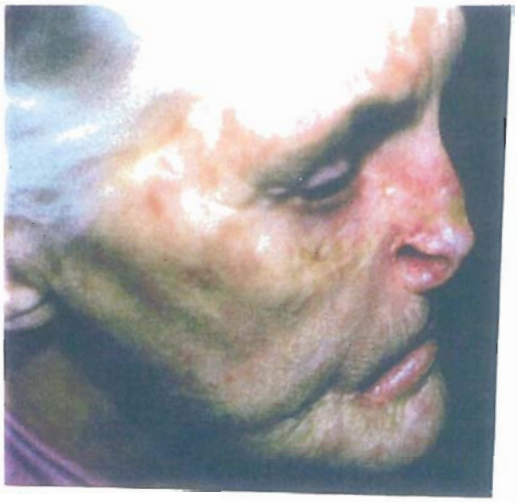
A. A patient with multiple skin deposits from a widespread non Hodgkin's lymphoma. These resemble the skin deposits of the malignant lymphoma called mycosis fungoides and respond very well to this type of therapy. First treated with anaerobic glycolytiic blocking agents and UHF. Photograph dated 10 June 1977.



RECURRENT SCC ON NOSE. SEVERAL FULL COURSES OF SUPERFICIAL THERAPY IN SOUTH AFRICA 4-5 YEARS AGO

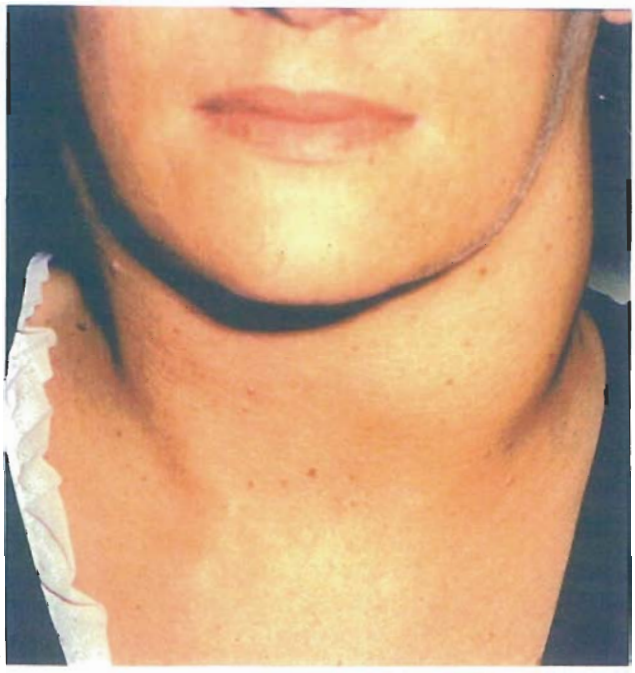


Retreated using 434 MHz UHF radiowaves avoids radionecrosis of previously treated tissues. Photograph taken 4 June 1987.



One year later. Radionecrosis of the nasal cartilages avoided at this stage. Photograph taken 21 January 1989.

HODGKIN'S DISEASE



A



B

A. A young lady with recurrent Hodgkin's disease. She has been treated for 18 months with cytotoxic chemotherapy and recurrence was obvious in the neck.

B. Shows the results of a single course of treatment six weeks later. This young lady was treated on two further occasions and has been well without evidence of disease for four years when last seen.

937 Skin Cancers : Evaluation of UHF --> XRT

Treated by Nelson and Holt, 1974-1976

2 failures in
600 Patients

No morbidity: 10%
with moderate
skin reactions

CONCLUSIONS:

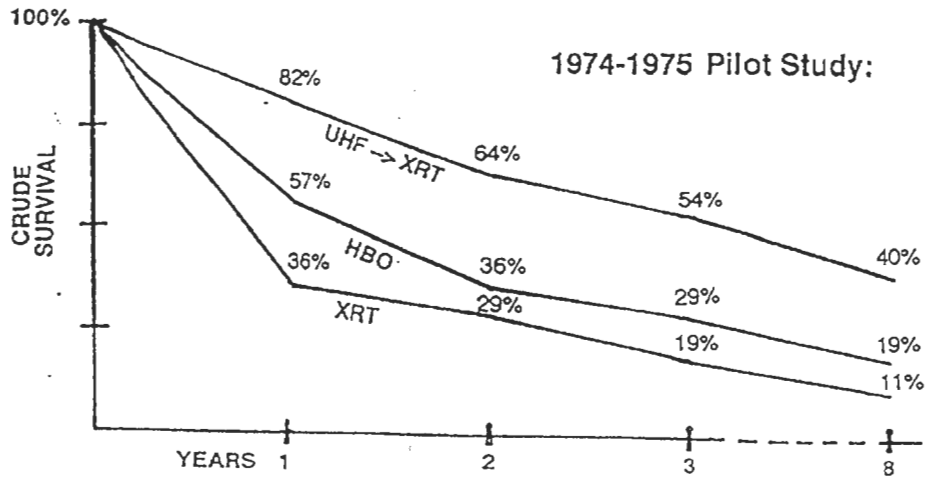
1. 434 MHz UHF can activate all ER_{ex} units of anaerobic glycolysis/2GSH --> GSSG -->2GSH function: the cancer's x value can be reduced to 2 or 1. The effect lasts for 20 $\pm$ 5 minutes and MUST precede ionising radiation. A NON-THERMAL EFFECT.
2. 434 MHz UHF can alter D_o to minimum of 95-100 rads approximately. A NON-THERMAL EFFECT.
3. Non electrical heating to 41.8°C has a minor effect; a fall in sensitivity value by a small percentage.

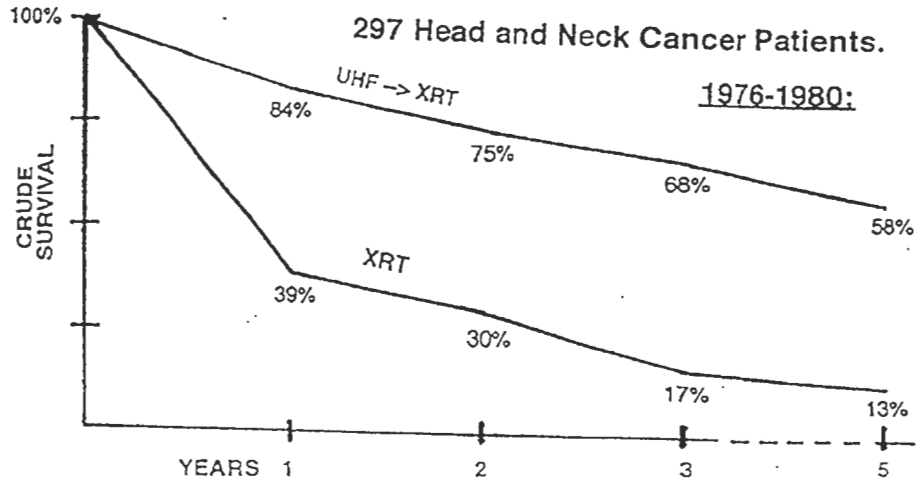
   Correctly described as hyperthermia, a thermal effect - Heat --> XRT or XRT --> Heat.
4. x numbers of all cured Rodent ulcers and SCC range from 2 to 6, possibly 7.
5. x numbers of failures of conventional XRT exceed 5.
6. Cancer of any x value over 6 or 7 cannot be cured by teletherapy.
7. Radioactive implants - eg Tongue - can succeed when x has values between 2 and 10, due to safety of higher local dosages.

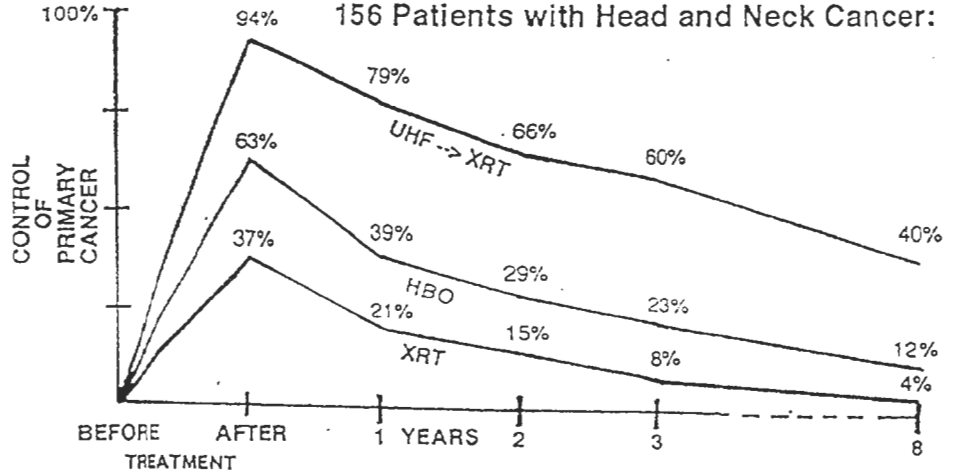
TEMPERATURE MEASUREMENTS:

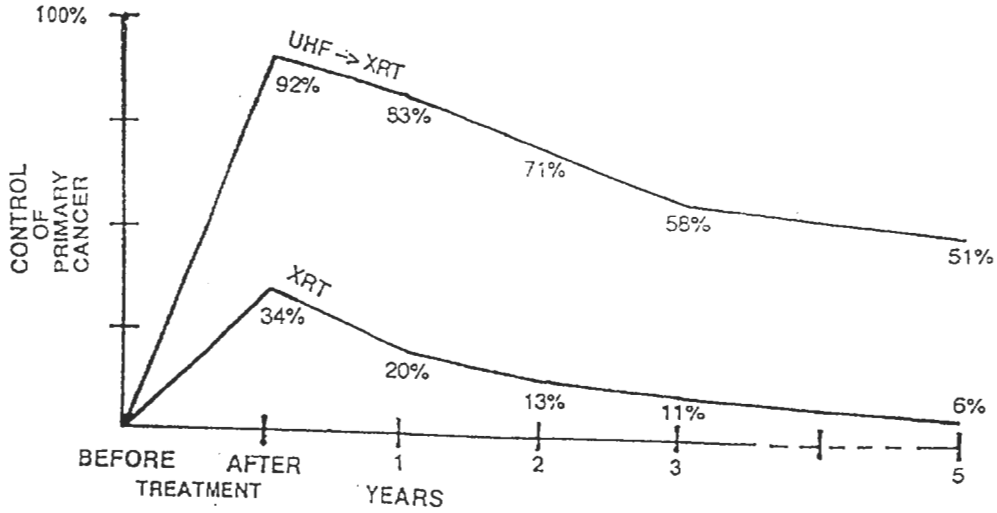
Every alternative patient was investigated by R W Stanford, MA, F Inst P, Head of Medical Physics for Western Australian public hospital systems and/or his staff. AGA telethermometric non invasive measurements or an implanted platinum thermometric junction was used.

EAR, NOSE AND THROAT (E.N.T) CANCER









The improved immediate response using UHF

UHF ► XRT =

52 treated by 434 MHz UHF followed by x-ray therapy: Average age 71 years. Average x-ray dose 4,600 rads over 6 to 8 weeks.

HBO =

52 treated by hyperbaric oxygen and x-ray therapy: Average age 64 years. 600 rads, twice weekly to average total 3,600 rads

XRT =

52 treated by conventional normothermic x-ray therapy: Average age 69 years. 200 rads daily to average 6,000 rads total

79 treated by 434 MHz UHF followed by x-ray therapy: Average age 63 years.

218 treated by conventional normothermic x-ray therapy: dose as in Pilot Study. Average age 68 years.

References: Holt JAG & Nelson AJM. Medical Journal of Australia 1978, 2:88-90 and 1985, 142:707-708.

Caldwell W L International Journal of Radiation Oncology, Biology and Physics 1979, 5:1919-1921.

Int. J. Radiation Oncology Biol. Phys., Vol. 5, pp. 1919–1921
©Pergamon Press Ltd. 1979. Printed in the U.S.A.
0360-3016/79/1 01-1919/$02.00/0

Editorial

EVALUATION OF THE PERTH EXPERIENCE IN TREATING WITH IONIZING RADIATIONS AND VHF (434 MEGAHERTZ) RADIATIONS

WILLIAM L. CALDWELL, M.D.

Division of Radiation Oncology, Department of Human Oncology, University of Wisconsin Center for Health Sciences, 1300 University Avenue, Madison, Wisconsin 53706

Holt and Nelson's experience in 52 patients with head and neck cancer treated with 434 MHz microwave hyperthermia and ionizing irradiation in Perth, Western Australia was reviewed during the author's visit there in the spring of 1978. The 2 year disease-free survival of 47% for patients with advanced disease (T_3, T_4 or N_2, N_3) is promising. This is especially encouraging since these results were obtained with lower than conventional doses of irradiation and normal tissue tolerance was excellent. Phase I/II studies in this country appear warranted.

Mention the name of Dr. John Holt to anyone who is interested in hyperthermia and invariably a controversy is provoked. Concerns regarding Dr. Holt began initially in this country in 1974 when his editorial entitled "Cure of Cancer—A Preliminary Hypothesis" was published.[1] A number of ill-conceived speculations and poorly-based claims included in that thesis were harmful to his image and subsequently have interfered with his being accepted *now* after he has accrued an exceptional clinical experience in more than 1,500 patients and has moderated his claims.

After reading the paper he prepared with his associate, Allan Nelson, entitled "The Problem of Clinical Hyperthermia" published in AUSTRALASIAN RADIOLOGY[3] and seeing slides of many anecdotal cases that Dr. Holt presented at the Conference on Clinical Prospects for Hypoxic Cell Sensitizers and Hyperthermia in Madison, Wisconsin (October 30, 31, and November 1, 1977),[2,3] I decided to visit Perth. While in Madison, Dr. Holt promised me the opportunity to review the Perth experience and, specifically, to evaluate the 52 patients with advanced head and neck cancers he and Dr. Nelson had treated with ionizing radiations and 434 MHz heating. This he graciously and openly permitted me to do during the ten days I was in Perth in April 1978.

I reviewed the charts and records on all of the 52 head and neck cancer patients. Twenty-three of the 32 surviving patients were seen personally by myself with Dr. Holt in his follow-up suite. Several of the surviving patients who were not seen during my visit are in nursing homes in their home community or live several hundred miles or more away and were unable to come to the clinic for evaluation. In addition, many other previously treated patients or those on treatment were seen.

A few more words about Dr. Holt before proceeding: He is a conscientious, bright physician who was initially trained as a surgeon and is actually a fellow of the Royal College of Surgeons. At a certain point in following this path, he "saw the light" and began a training program in radiotherapy in Bristol. After completing this program, he spent five years at the Royal Marsden Hospital before going to the Peter MacCallum Clinic in Melbourne in 1959. He moved to Perth the following year.

Hyperbaric therapy was introduced into his practice in the mid to late 60's, but this resulted in only modest therapeutic gains. Microwave hyperthermia was introduced in 1973; early experience with heating pads and blankets, and later with hot paraffin for extremity lesions, had begun in 1962.

I also should say at this time that Dr. Holt considers himself a pragmatic clinician: he is interested in curing patients with cancer! That his urge to accomplish this is almost messianic tends to work to his detriment.

In his own mind he is certain that his recently introduced techniques utilizing hyperthermia are improving tumor responses and treatment results. He is not sure precisely what mechanisms are involved, but he says he hopes that the scientists who have been critical of his efforts will be able to answer the questions they have been asking him and will be able to explain why there is a therapeutic gain.

One final point should be made since Dr. Holt has been accused of using hyperthermia as a gimmick to attract patients. His group of radiotherapists, now composed of a

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Reprint Requests to: A.L. Wiley, MD, Division of Radiation Oncology, Dept. of Human Oncology, University of Wisconsin Center for Health Sciences, 1300 University Ave, Madison, WI 53706.

Table 1. Two-year survival of 52 patients with ENT tumors

T-N stage	Number of patients	% Survival
T_1N_0	3	100**
T_2N_0	12*	
T_1N_1, T_2N_1	6	49
T_3, T_4, and/or N_2, N_3	31	
Overall survival		63.5

*4 with recurrent disease.
**1 patient died NED at age 80, 4 years after treatment.

total of 4 individuals, do all of the radiotherapy in Western Australia, which has a population of 1.2 million. The closest Australian city to Perth is Adelaide, more than 1,200 miles away. He doesn't need to drum up business!

Between June 1974 and June 1976 Drs. Nelson and Holt treated 52 patients with head and neck cancer, using ionizing radiations and 434 MHz heating. Although in their 1977 paper it was stated that the patients had advanced head and neck cancers, as indicated in Table 1, in my opinion 15 of the patients should have been considered as having less than advanced disease. It is true that 4 of these 15 patients did have recurrent disease, but the recurrences were still small and localized. The most common tumors treated in this series included tonsil (9), anterior tongue (5), pharynx (5), floor of mouth (4), soft palate (4), supraglottic larynx (4), larynx (4), and maxillary sinus (3).

The patients were treated with a variety of techniques. Most of the patients were irradiated with an external beam only, but one patient was treated with a mold, two patients with gold grain implants only and seven patients had gold grain implants in addition to external beam therapy. If the patients with less than advanced disease are excluded and those treated with either molds or gold grains also are excluded, the doses of radiation generally utilized ranged from 4,000 rad/6 weeks to 6,300 rad/7 weeks. Only six patients had doses in excess of 5,500 rad in 6 to 7 weeks.

The patients were heated either with a multiple unit system* or with a single 434 MHz applicator. The former consists of 3 rings of 434 MHz diathermy units with each ring containing 4 such units (Fig. 1). Since the output of a single unit is 200 watts, the maximal output for the multiple unit is 2,400 watts. In general the patients were heated for 20 to 30 minutes at temperatures of 39.5°C., plus or minus 1°C. before being irradiated. Heating was usually utilized for only half of the treatments, most

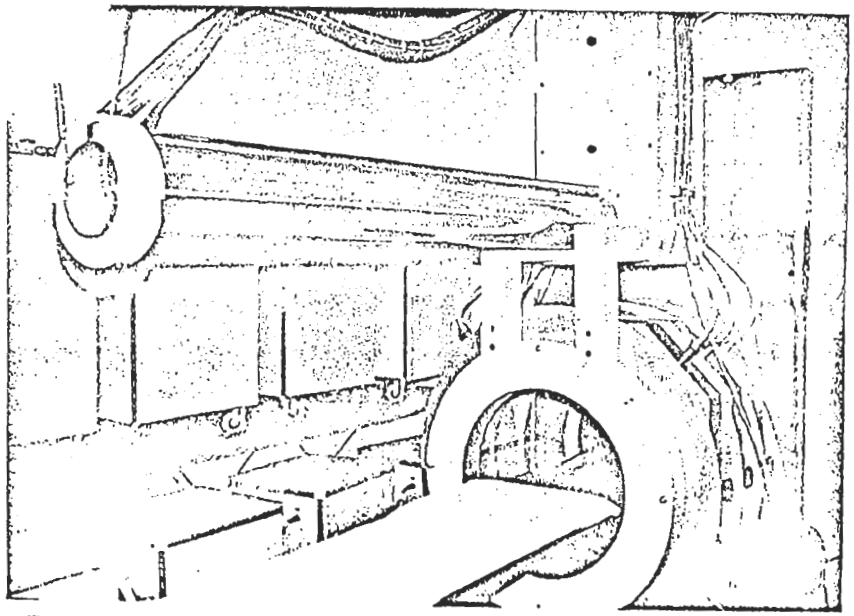


Fig. 1. A multiple unit* mounted in a horizontal position. The concentric rings of 434 MHz diathermy units move horizontally around the couch.

*Tronado.

patients being irradiated without heating on alternate days.

All of the 15 patients with less than advanced disease were alive without evidence of disease at two years; one of the patients subsequently died of other causes at 80 years of age, four years after treatment. Eighteen of the remaining 37 patients were alive without evidence of disease two years after treatment; this means a two year survival of 49%.

The doses of irradiation were, of course, considerably less than usually utilized for the treatment of advanced disease. The results are particularly impressive when the minimal associated morbidity is considered. Even in the patients with recurrent disease, there were no significant complications from the combined treatment.

It appears that with moderate temperature elevations there is an enhanced radiation effect on tumor cells without a similar enhancement of normal tissue effects. However, because of the disparate treatment regimens, the multiplicity of tumor sites and tumor extent, and the uncertainties about the precise temperature elevations achieved (realizing full well the difficulties of accurate thermometry, especially for deeply situated tumors), it is impossible to be certain that the apparent improved results can be reproduced. Nevertheless, the results are sufficiently encouraging that other institutions should use a similar approach in an effort to corroborate this experience. With more rigidly controlled and uniform treatment conditions it may be possible eventually to determine on rational grounds more optimal methods of using the combined approach.

Ned Hornback and his associates at the Indiana University School of Medicine in Indianapolis are currently involved in phase II trials utilizing 434 MHz radiations in conjunction with ionizing radiations.[4] A similar program has just been initiated at the University of Wisconsin Center for Health Sciences. Serious attempts are being made to monitor normal and tumor temperatures; normal tissue reactions and tumor responses are being carefully recorded.

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1. Holt, J.A.G.: The cure of cancer—A preliminary hypothesis. *Aust. Radiol.* 18: 15–17, 1974.
2. Holt, J.A.G.: Fundamental differences between simple hyperthermia and 434 MHz effects: Proof of thermic and non-thermic effects of 434 E.M.W. *Proc. of the Conference on Clinical Prospects for Hypoxic Cell Sensitizers and Hyperthermia*, 1978.
3. Holt, J.A.G.: Results of combined 434 MHz E.M.W. and x-ray therapy. *Proc. of the Conference on Clinical Prospects for Hypoxic Cell Sensitizers and Hyperthermia*, 1978.
4. Hornback, N.B., Shupe, R.E., Shidnia, H., Joe, B.T., Sayoc, E., Marshall, C.: Preliminary clinical results of combined 433 megahertz microwave therapy and radiation therapy on patients with advanced cancer. *CANCER* 40: 2854–2863, 1977.
5. Nelson, A.J.M. and HOLT, J.A.G.: The problem of clinical hyperthermia. *Aust. Radiol.* 21: 21–30, 1977.

UHF BEFORE X-RAY THERAPY
Retreatment without sequelae

A patient treated by a primary laryngectomy for a recurrent cancer of the vocal cords. He then developed a recurrence in the right regional lymphatic nodes and the scars reveal that the block dissection carried out was unsuccessful which led to a recurrence below and to the right side of his tracheostomy opening. He was rapidly asphyxiating himself when treated with combined radiowave and X-ray therapy.

Each cancer cell has cytoplasmic energy producing ($E\text{-}R_{ex}$) units which power mitosis. Only 1 is active at any one time; BUT all must be killed to kill the cancer cell. The number per cell is the cell's "x" number. When x is > 7, XRT is rarely curative. x is proportional to the radioresistance. The genes in the nucleus are totally IRRELEVANT to cancer!

x = value in subglottic cancer is from 8 to 15 and assume x for each of these cancer cells is 12.

The dose to kill 37% of a colony is D_{zero} (D_o) and is 160 rads approximately. Treated with y doses (30) of D (200) rads each.

Then: residual cell number N_R - original size $N_o = (1-(1-D/D_o)^x)^y$

OR $= N_R = 3.\ 10^9\ (1-(1-e^{-200/160})^{12})^{30}$

$= 1.7625\ .\ 10^9$!! Cancer reduced by 37%!! 63% of original cancer remains!

So it needed surgery to remove the remnants - laryngectomy, after total x-ray dose = 6000 rads!

3 months later it recurred partly blocking his tracheostomy.



Photograph taken on 24 February 1978.
Size = 30 ml, 10 times original

RETREATMENT WITHOUT SEQUELAE
20 treatments UHF and 150 rads per day



Last treatment 25 March 1978.
Photo taken 29 March 1978.

The recurrence, 10 times larger, approximately 30 x 10^9 cells, treated with 20 doses of 150 rads each.

2. With UHF before 150 rads for 20 treatments, x = 1 (because all 12 are active) and D_o reduced to 100 rads.

So: $N_R = 30.10^9.e^{-D/D_o)y}$

$= 30.10^9.e^{-150/100.\ 20}$

$= 29.5998.\ 10^{-4}$ or an overkill of approximately 340 times!

UHF, given 3 times per week on Monday, Wednesday and Friday 20 minutes before x-radiation 150 rads (cGy); Tuesday and Thursday given 150 rads: spaced 23-24 hours apart.

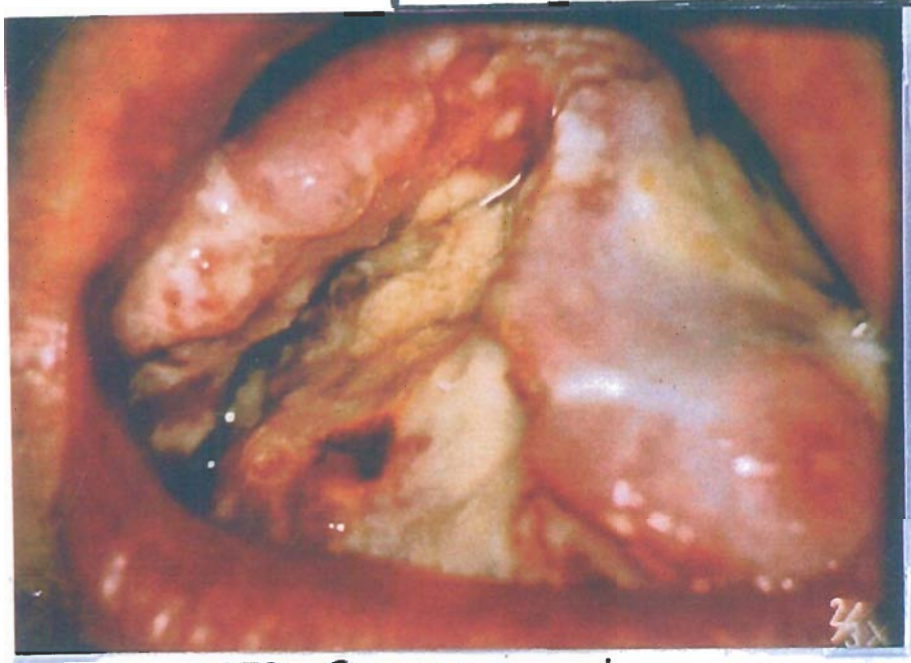
Therefore even though 10 times the size it will disappear and is certain to be cured in the areas irradiated. This is cure since laryngeal cancer rarely spreads widely. Last seen April 1983 - no recurrence.

3. Had he been originally treated, UHF plus 3000 rads you can guarantee:

A: NO complications or long term sequelae,

B: NO laryngectomy or block dissection of neck nodes!

E.N.T. CANCER



16 June 1979 - Squamous carcinoma of tongue and floor of mouth.



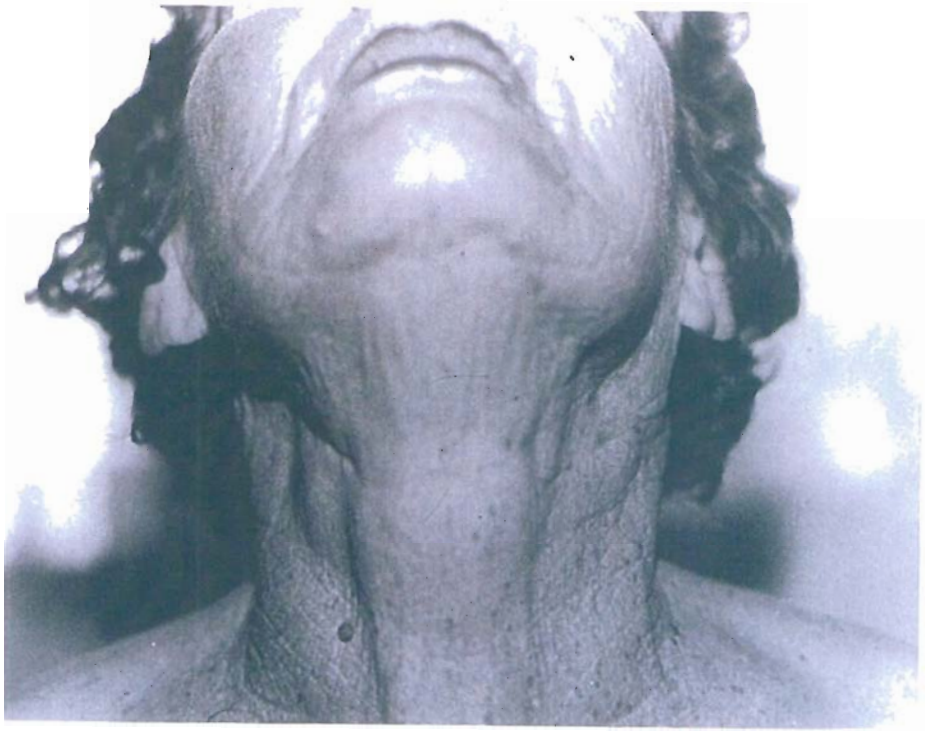
24 July 1979 - 6 weeks later to show radiation reaction of 3,300 rads, 150 daily after UHF.



17 February 1978 - Recurrence after surgery for tonsillar cancer.



10 June 1980 - 2 years later after course of combined UHF —> x-ray therapy, 30 treatments 150 rads per day after UHF on Mondays, Wednesdays and Fridays.



A: A patient with multiple secondary squamous cell cancer nodes in the neck with disease in the superior mediastinum (upper part of the inlet of the chest). The watery swelling of the neck (oedema) is due to the pressure at the thoracic inlet. Primary was in the nasopharynx. Photograph taken before treatment on 5 June 1979.



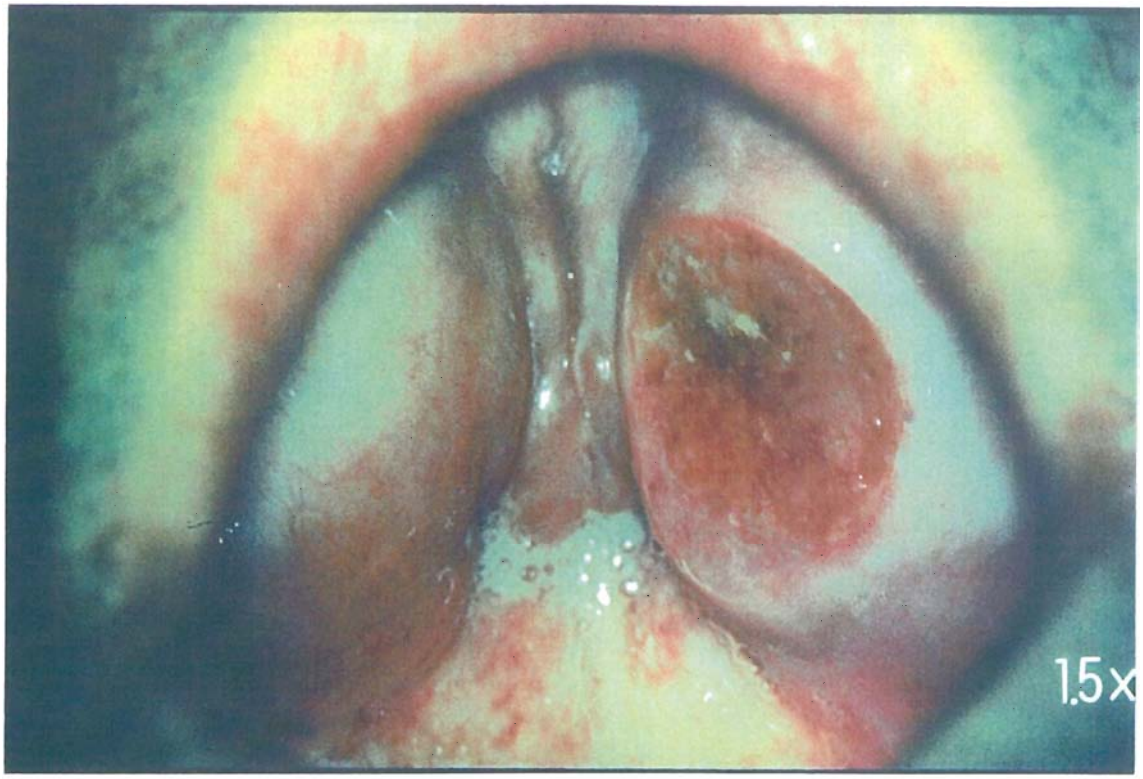
B. After a course of combined treatment the disease completely disappeared and the vascular blockage of the upper thoracic inlet disappeared. This patient was reviewed three years later and was then lost sight of. No evidence of disease persisted at that time. Photograph taken after treatment on 10 July 1979.



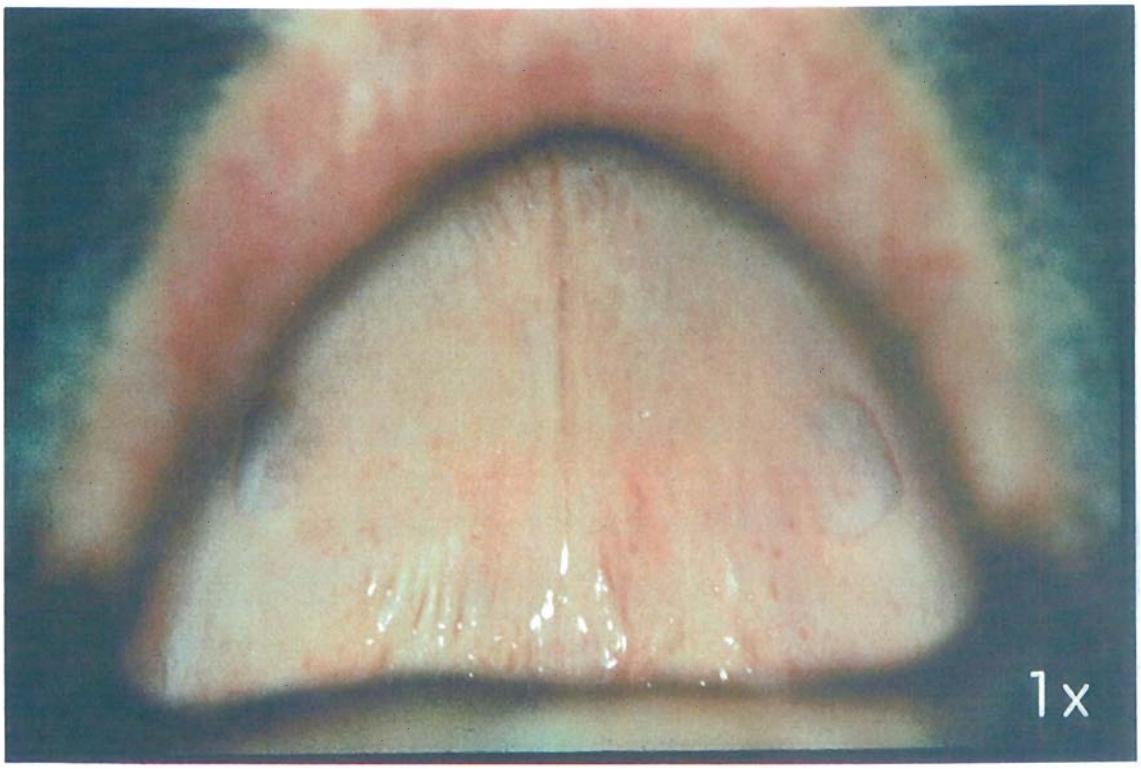
6 August 1975:
A mass of secondary squamous cell cancer in his neck lymph nodes: primary site in his tonsil.



2 September 1976:
13 months after combined UHF and x-ray therapy. He was reported to have lung metastases from which he died in 1977.



A. A patient with a malignant lymphoepithelioma of the nasopharynx. Involvement of the hard palate and soft palate with this malignancy with widespread lymph noes in both sides of the neck was treated on bloc (ie with two large opposed fields) with radiowaves and x-ray therapy. Photograph taken 25 July 1975.



B. Three years later the palate still shows the defects through which these tumours projected when treated. Complete clearance of the disease when last seen five years after treatment. Photograph taken 31 October 1978.



A. A sarcomatous cancer perforating the soft palate, in 1975.



B. As A after 20 days (four weeks) combined UHF radiowaves followed by low dose (160 rads per day) x-ray therapy. Besides killing the cancer the healing stimulation of 434 MHz UHF radiowaves completely restored palatal structure. This patient had his disease controlled until 1987 and died the following year



Figure A: A primary in the nasopharynx of lympho-epitheliomatous type with multiple secondaries in lymph nodes under the left jaw, in both side of the neck and in both supraclavicular regions.



Figure B: Complete remission of her disease after 6 treatments using 600 international units of insulin intravenously followed by radiowave therapy on alternate days.



Figure C: Taken at the same time as Figure 125A, shows the penetration of the hard palate with lympho-epitheliomatous cancerous tissue.

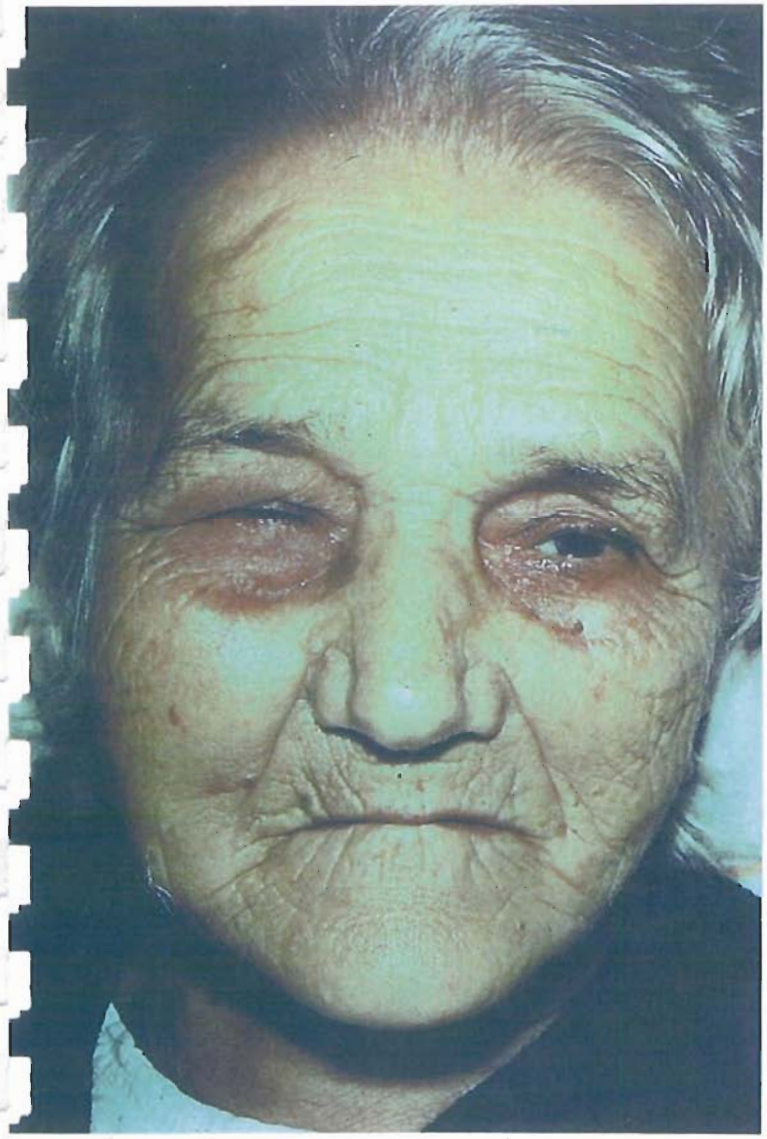
8 February 1975.



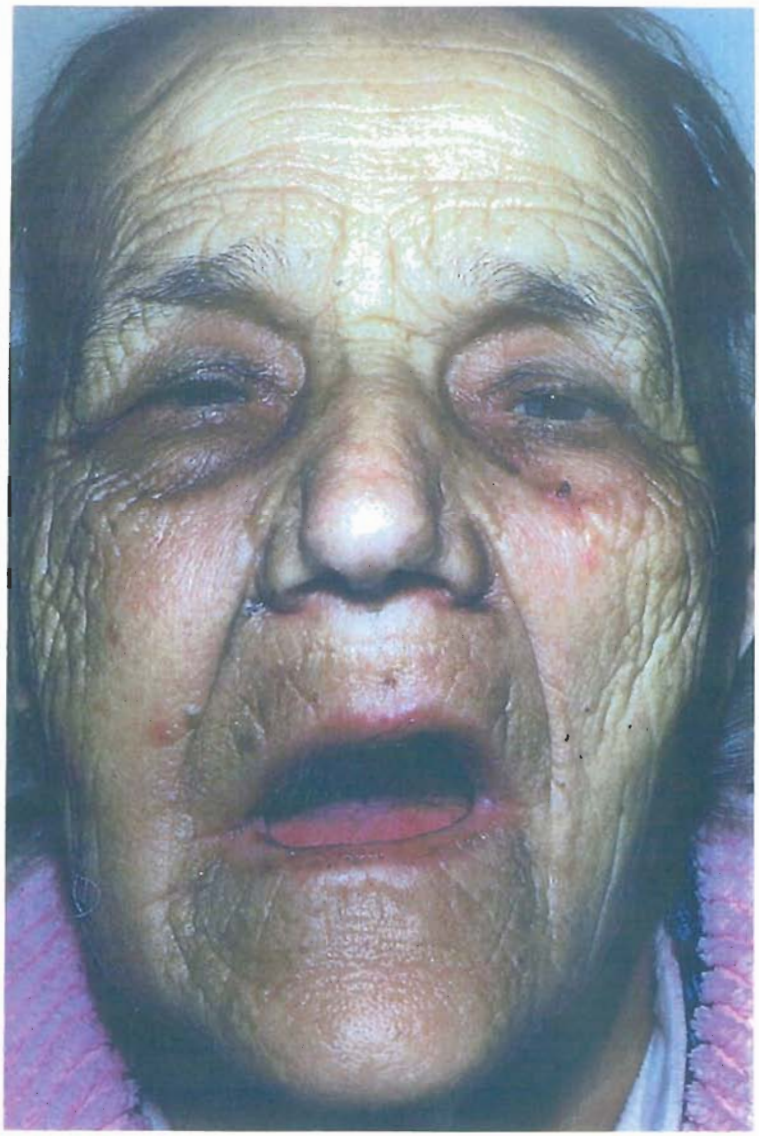
Figure D: Taken at the same time as B, complete restoration of the palate 3 months after treatment. This patient required post-treat ment intravenous glucose between 24 and 36 hours to correct low blood sugar levels. Despite this she survived with no evidence of cancer for 5 years and was then lost sight to follow-up.

14 March 1975.

ENT CANCER



1 July 1974
Severe pain from proven right maxillary antral cancer.

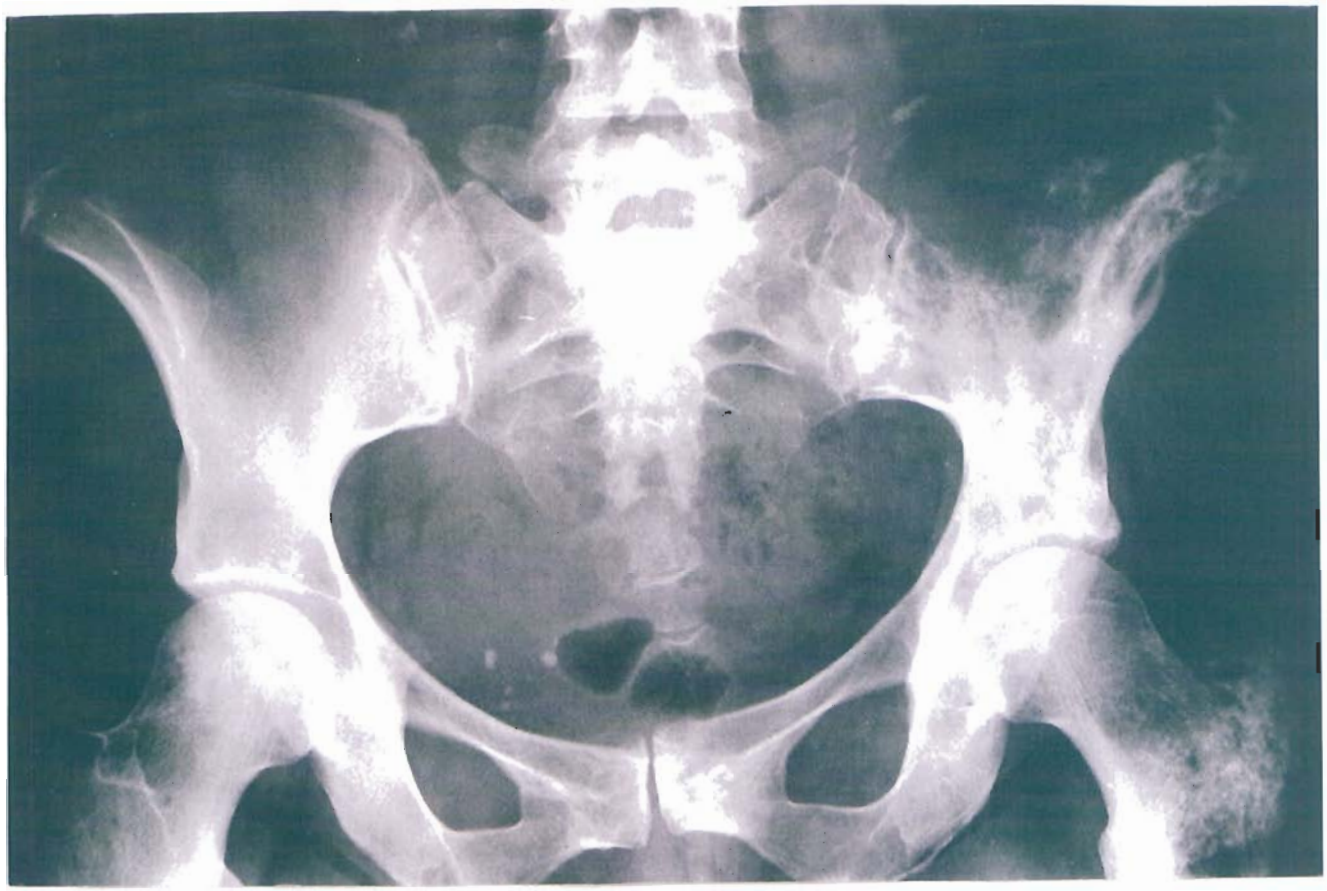


8 August 1974
Immediate relief and complete regression: x-rays and antrostomy all normal on 28 August 1974.

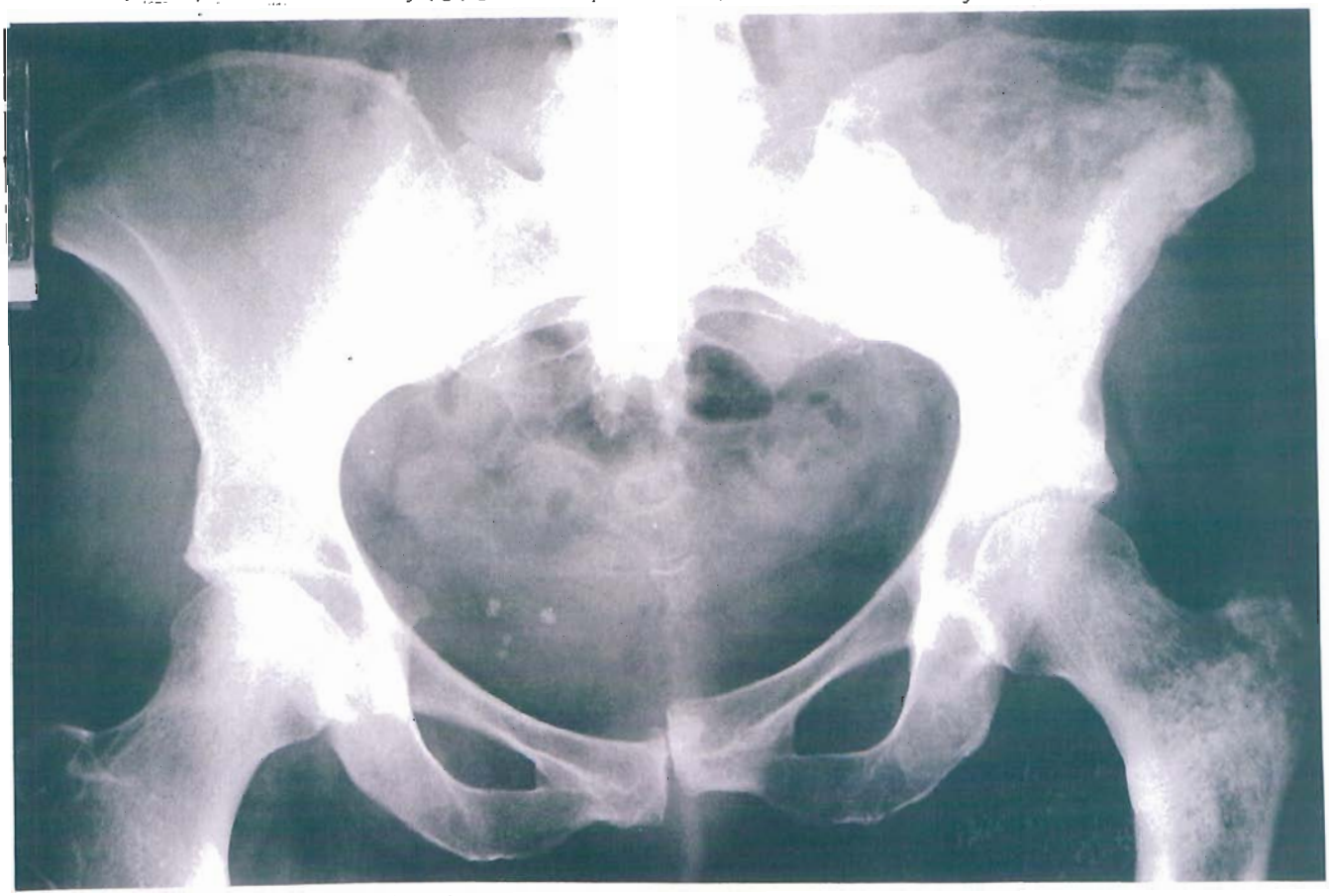
Treatment: U.H.F. to her head and neck for 20 minutes followed immediately with 150 rads. uniformly from mid-forehead to sternal notch. The left edge of the field extended to the left inner canthus.
Total dose of 3,000 rads. Relief of pain was complete after the first week of treatment.

PROOF OF U.H.F. AS A SOLITARY ANTI-CANCER METHOD.

Pages 57 to 60 record biopsies from two post-menopausal (7 & 9 years) ladies with multiple metastases, from breast cancer. Surgery & X-RAY to their primaries, multiple cytotoxics and hormones for 3 or more years. Proof of 100% kill, when enough energy coagulates E-R_{ex} and PROVES that it is in the cytoplasm, NOT IN THE NUCLEUS.



A. X-ray of pelvis showing metastatic breast cancer taken 4 February 1976. UHF therapy only on 4, 5 and 6 February 1976 with biopsies on 9, 11 and 13 February 1976.

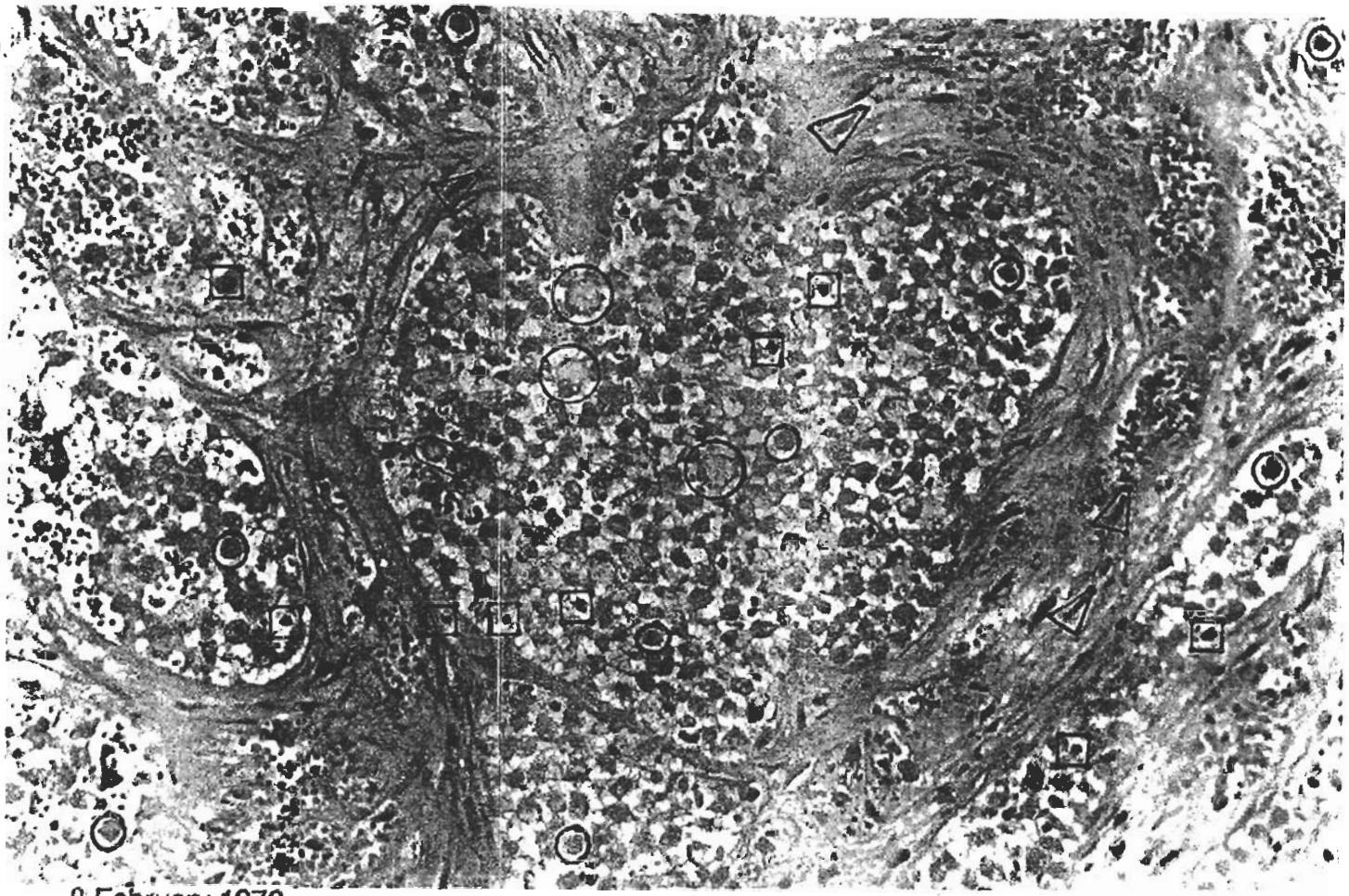


B. X-ray 15 June 1976. The end result of combined UHF and x-radiation. 20 treatments between 16 February and 13 March 1976. Total x-ray dose 3,000 rads. Complete healing has been achieved.

434 MHz UHF: UNIQUE 100% CANCER CELL KILL

C. Secondary cancer in the upper end of the right femur in a lady suffering from widespread cancer. The primary was an adenocarcinoma in the breast. This lady requested a trial of UHF 433-434 MHz in isolation to relieve the pain of her bones which was continuing despite large doses of analgesics. Treated on three alternate days for approximately 90 minutes per day with a moving field method exposing her skin to approximately 40 milliwatts per square centimetre. Four days later this specimen was obtained from the centre of one of her bone secondary cancers. Note: A - The dark staining or black dots are the nuclei of the normal inflammatory cells in the bone marrow. B - The elongated string like structures are the normal bone and contain elongated cells with dark nuclei which are normal, undamaged bone cells. C - The large spaces within the bone structure are packed with cancer cells which have a grey colour and are all dead. In some (two are outlined) coagulation of the rim of the cell is visible but the nucleus in the centre is almost clear and will not stain with the stains that darken the normal cells nuclei. This is the poached egg appearance of a patient treated with electrical hyperthermic methods in which adequate electromagnetic radiation energy is delivered. The periphery of the cell is the cytoplasm and is the electrically conducting part of the cell. This therefore heats selectively and becomes coagulated. The coagulation of the peripheral part of the cell prevents the dyes penetrating so that the nucleus remains unstained. In this particular secondary cancer no single active cancer cell could be discovered.

D.



9 February 1976.

Poached Egg" appearance ◯

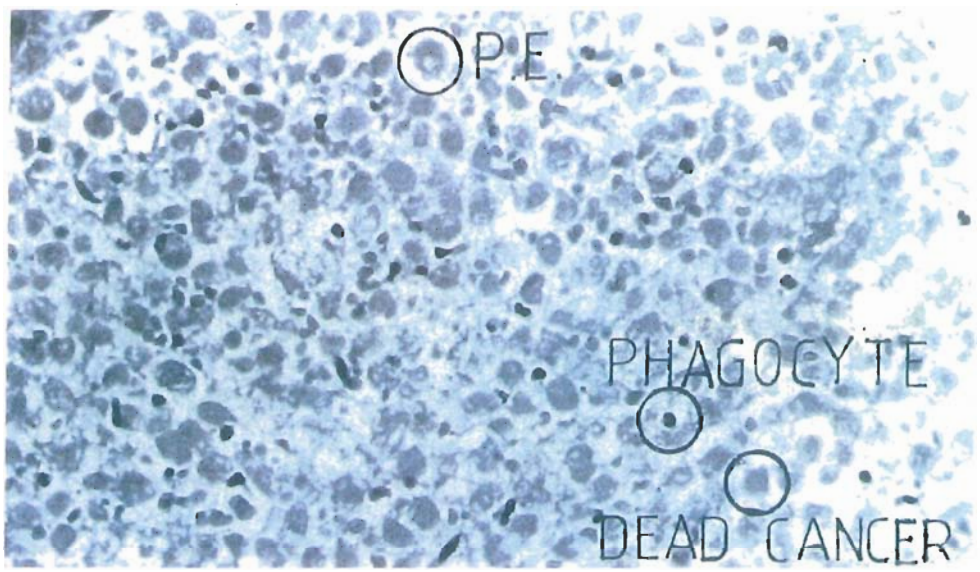
Dead cancer cells - featureless ○

Normal undamaged inflammatory cells □

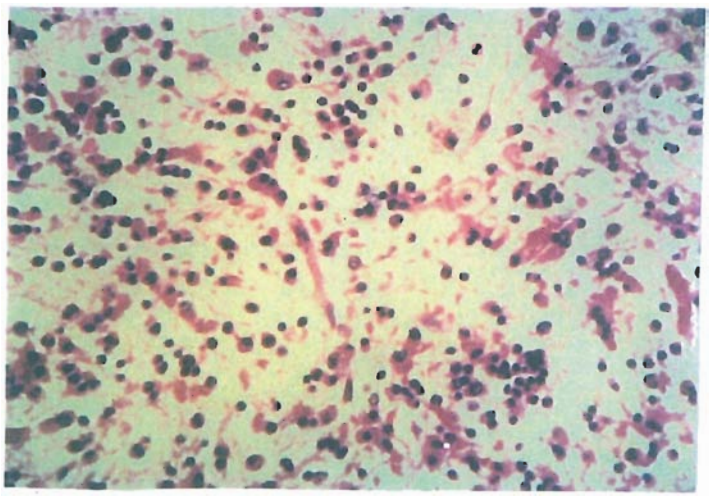
Normal undamaged bone cells ▷

Summary: Direct proof of the cancericidal effect of 434 MHz UHF radiation is categorically proven. This evidence was available from the West German State Veterinary Services from their trial on porcine cancer which produced identical results. Similar proof was available freely in November 1973 in Hamburg, West Germany, when I was introduced to the Veterinary Surgeon by Dr Irmtraud Mueller from her practice in Pforzheim.

434 MHz UHF: UNIQUE 100% CANCER CELL KILL



E. Biopsy 11 February 1976. The dead cancer cells are still visible but an increased inflammatory reaction of phagocytes, cannibalising the dead cancer cells is present.



F. Biopsy 13 February 1976. All the dead cancer cells have been removed except for a few cytoplasmic remnants.

The effects of Radar Waves on Garden Greenfly.

This Patient's son, when his mother was examined by me at her home which backed on to Perth's International Airport, showed me their rear garden where she grew some beautiful roses. They were covered in Greenfly: he said "Watch them closely". Every minute or so they all flew off the roses, circled for an half minute or less and settled back! This was repeated and he pointed to the revolving RADAR antenna (400 m. away) which coincided with their flight pattern!

Duct Carcinoma of the breast, post menopausal, mastectomy Nov. 1973. Failure of hormone and cytotoxic therapy.

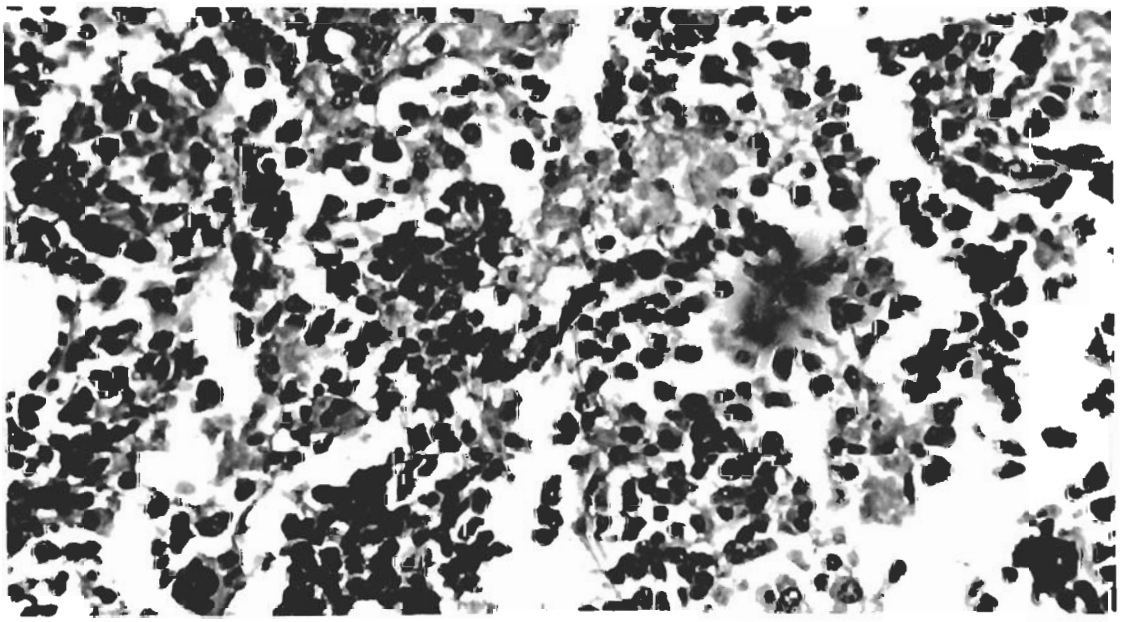


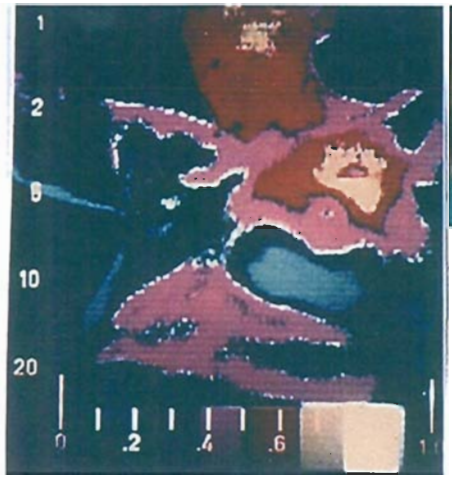
3 June 1975. Biopsy confirmed metastatic duct breast cancer.

9 September 1975 after 5days consecutively of UHF alone to the whole body, mid June, 1975.



Biopsy from the Iliac Crest 24 June 1975. 100% cancer cell kill. From being bed ridden she travelled abroad and lost sight of.





THERMOGRAM (1) Resting at cool room temperature 24°C.



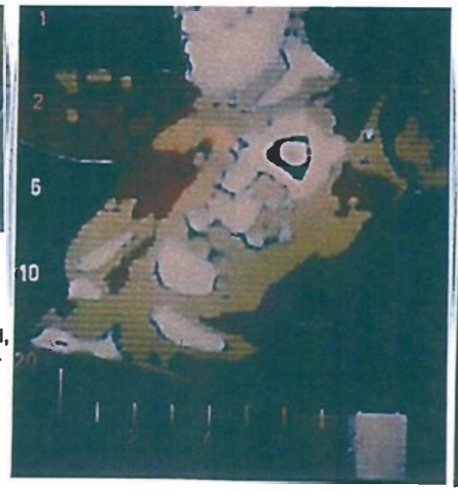
PRE TREATMENT

← 30 October 1975--
X-ray therapy planning.

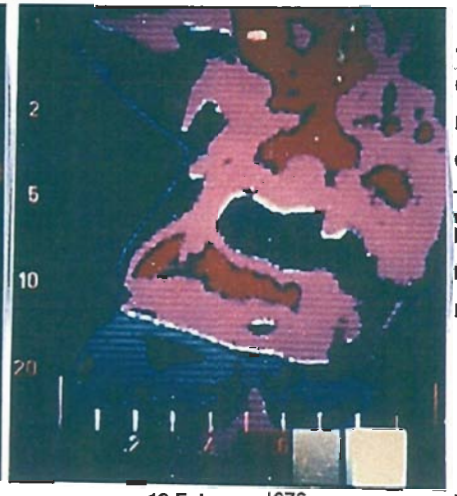
This ulcer was biopsied, note the indrawn nipple.

First x-ray treatment on

31 October 1975. →



THERMOGRAM (2) MAXIMUM 0.8°C HIGHER THAN (1).



-- 12 February 1976 --
THERMOGRAM (3) at follow-up
= NORMAL PATTERN.

4 antennae energised at 200 watts each.

Central frequency 434.15 MHz.

Receiving antenna: Eddyscone type 986.

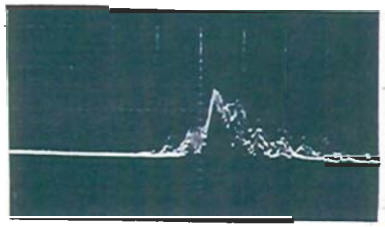
Oscilloscope: Polarad STU1B.

Treatment room: A closed Faraday cage with analyser antenna in line with patient's long axis on cage's wall.

Exposures: 1/8 second.

Repetition rate: 50 per second.

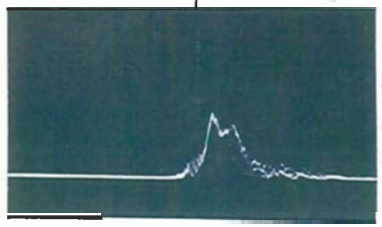
31 October 1975



Central frequency 434.15 MHz.

+ 1/2 MHz/cm | - 1/2 MHz/cm

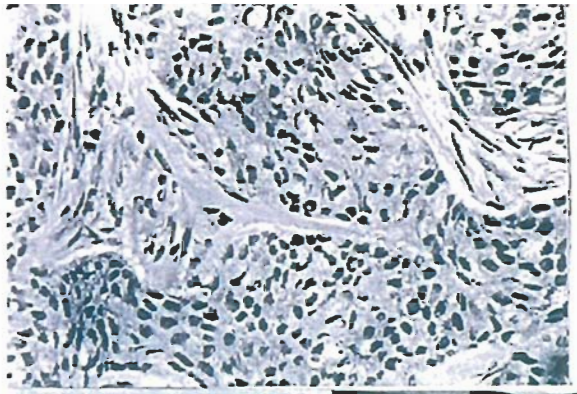
3 December 1975



Cancer appears to behave at 434 MHz as a resonator and frequency changer

3-1 ↓

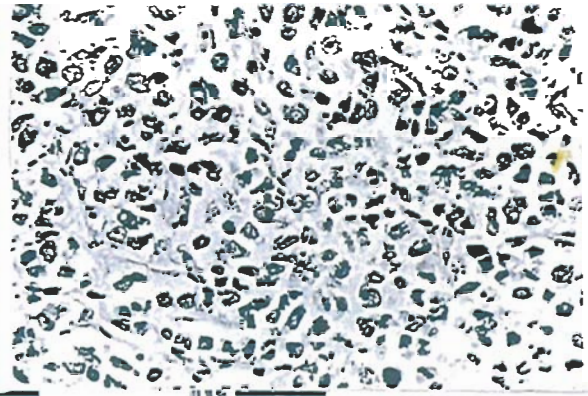
BIOPSY (1) - Slowly growing breast cancer - a few mitoses in this section - 30 October 1975 -



3-2 ↓

BIOPSY (2) UHF WAVE STIMULATION

- 31 October 1975 - Before x-ray therapy: all cells in mitosis





-- 12 February 1976 --
PRIMARY AND AXILLARY NODES
= NORMAL.

TREATMENT

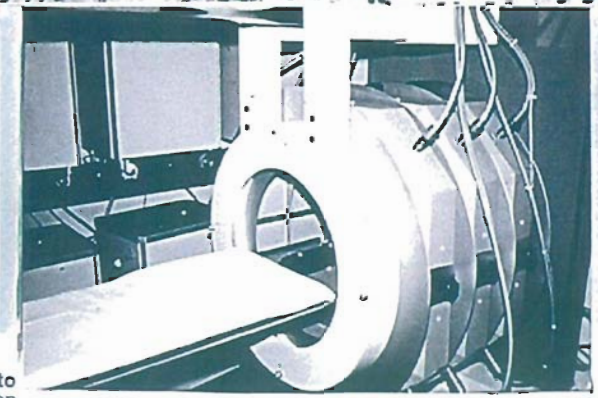
An opposed pair of fields, angled to exclude most of her lungs, irradiated the lower neck, axilla and breast tissues uniformly with 140 rads per day after the UHF exposure. Final treatment 5 December 1975 at 3,500 rads total dose in 25 days over 5 weeks. Reviewed on 16 January 1986:

- No evidence of cancer,
- No radiation sequelae.



31 October 1975

After 20 minutes exposure to 434 MHz UHF, biopsy 2 was taken and 4 M.E.V. X-ray Therapy commenced.



THE 434 MHz U-H-F WAVE COUCH AND 12 RADIATING ANTENNAE. AFTER EXPOSURE X-ray TREATMENT MUST BE STARTED WITHIN 20 MINUTES

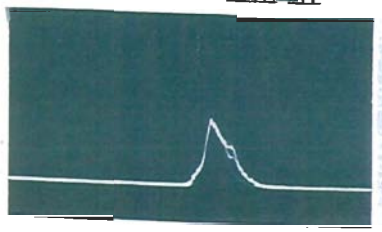
200 watts per antenna. Patient's cancer is centred in treatment array. 15 minutes scanning (1 metre per minute) from mandible to iliac crest is delivered whilst fans direct moving current of air [illegible] face d[illegible]wards.



13 November 1975

After 10 days, 150 rads/day her ulcer is healing and her arm oedema has disappeared.

NON CANCER PATIENT



REFLECTED SPECTRUM ANALYSIS

19

Evaluation of UHF --> XRT
Treated by Nelson and Holt, 1974-1976



30 May 1975. Patient No 2. Mrs. T. Biopsy of each breast confirmed bilateral cancer; each pathologically different. Aged 35, refused surgery and oophorectomy: Requested U.H.F. etc. for her treatment.



20 March 1980. Perfect restoration of breasts' contours after treatment which has eliminated this in both sites. U.H.F. given Monday, Wednesday & Friday, immediately before 140 rads + or - 5 rads given daily. 3,500 rads total in 5 weeks.

Radiotherapists Drs. Alan Nelson, Peter Leckie and John Holt treated a series of Breast Cancer patients referred personally. They were all treated on the 4 million volt accelerator, installed in The Institute of Radiotherapy of Western Australia by a million dollar charity raising effort in 1957-1960. Dr. Holt was appointed medical director under Act of the W.A. Parliament No. 43 in 1958. Tenure was to age 65 in 1990. This was the only suitable X-Ray machine which gave an X-ray beam of uniform dose to any cancer area. We used it for 22 breast cancer patients from our own practice. The Institute was given the U.H.F machine (called a TRONADO because in Germany, where it was made, this name signifies a TORNADO or typhoon of electricity in the cancer cell) by Dr. Holt, from a generous benefactor. RESULTS: 21 patients obtained complete clearance in the areas treated, 1 failure salvaged by a Radio-active Gold grain Implant. 6 developed distant secondary cancers which we re-treated. 17 were alive and well in 1982. The Institute was closed, the Tronado was broken down, the building given to Sir C. Gairdner Hospital as its radiotherapy department and DR. Holt was removed illegally by an order in council from the local Government. His Lawyers advised that legal dismissal under the Cancer Council Act required Parliament approval.

Breast Cancer

A second case demonstrates the effect of 434 MHz + X-ray Therapy on Breast Cancer.



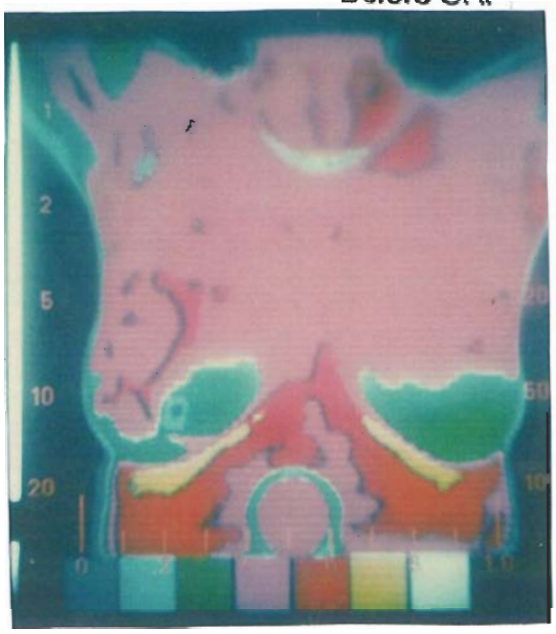
The tumour can be seen to be occupying the whole right breast with lymph node involvement. Photograph taken 2 June 1975.



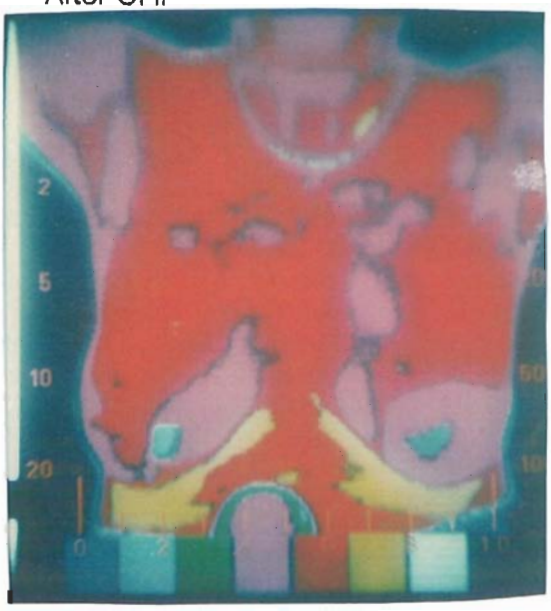
The lesions have healed after 434 MHz followed by X-ray Therapy. Photograph taken 27 June 1975.

10 years later the patient remains well and disease free. Thermograms of this patient on 2 June 1975 demonstrate a small heating effect but not sufficient to explain the tumour's response (1°C difference).

Before UHF

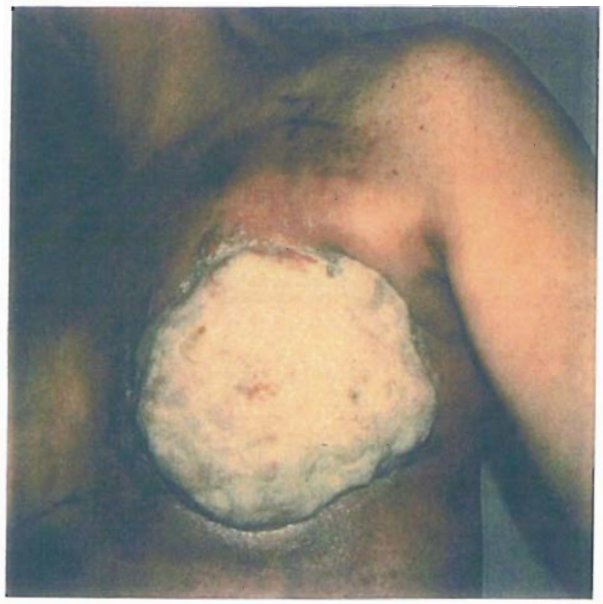


After UHF



UHF WITH X-RAYS: NON-THERMAL KILL OF CANCER ENHANCED SELF-LIMITING REPAIR OF DAMAGE

Late stage duct carcinoma of the breast:



3 June 1975

After UHF/X-ray Therapy:



9 September 1975

UHF has two functions:

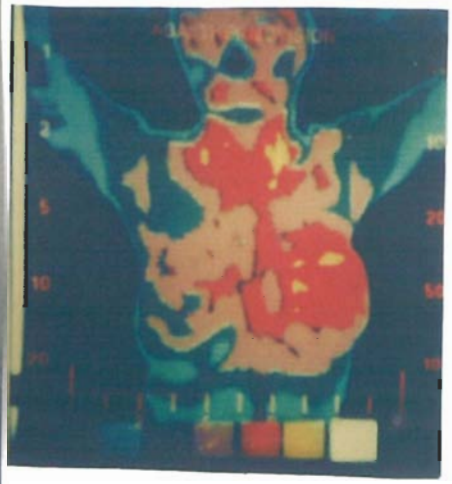
1. Non thermal radiosensitisation of ER_{ex}

2. When ER_{ex} is active, under aerobic control, repair is enhanced, yet self limiting. The bare area of chest wall is epithelialised spontaneously with normal squamous skin. The edges are exuberant but levelled out within two months.

This patient was treated using UHF before X-rays. UHF creates maximum increase in Radiosensitivity between 15 and approximately 40 minutes later. There is a smaller peak about 22 to 26 hourslater. Daily U.H.F., has been trialled but clinically has no better results than a daily uniform X-ray dose of 130 to 160 Rads and only giving the U.H.F. beforehand on Mondays, Wednesdays and Fridays.

All X-ray doses are prescribed in Rads which is defined as 100 ergs of energy absorbed by 1 gramme of tissue. Rads are now obsolete, in favour of Centi-Grays, 1 hundredth of a Gray!. In radiotherapy which also treats patients with heating to 41.8 degrees Centigrade CENTIGRADE is confused with CENTIGRAY ! To avoid mistakes Drs. Holt, Leckie & Nelson use Rads for X-Ray dosimetry which our staff prefer.





3 June 1977

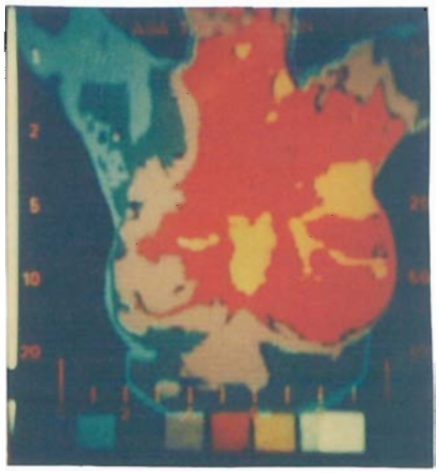
Before UHF

After UHF

Patient #3 - Mrs H.
X-ray Therapy after UHF to 3000 rads.

In 1986:





Photograph sent from New Zealand with an xmas card in 1986.

Left breast cancer, biopsied. No sign of cancer 9 years after UHF and X-ray Therapy. Thermograms (right images – upper: before UHF, lower: after UHF given immediately before XRT – 140 rads per day, 20 days). Note: zero temperature rise and non thermal radio– sensitisation of cancer.

RECURRENT BREAST CANCER



A. A lady with massive recurrence of breast cancer following a mastectomy occupying the axilla and causing a paralysis of the left brachial plexus. Her arm was nearly completely paralysed, only the fingers were stiff and partly usable. Given a course of radiowaves and x-ray therapy. Photograph taken 6 February 1975.



B. Healed. Photograph taken 3 April 1975.



C. This patient had developed considerable re-function of the arm and shoulder and the clean ulcers on the front of the axilla indicate where cancer masses had died and sloughed off. This lady slowly improved over the next year, her arm was almost restored to normal function without any evidence of activity of her cancer when she was unfortunately killed in a car accident in 1981. Photograph taken 7 August 1975.

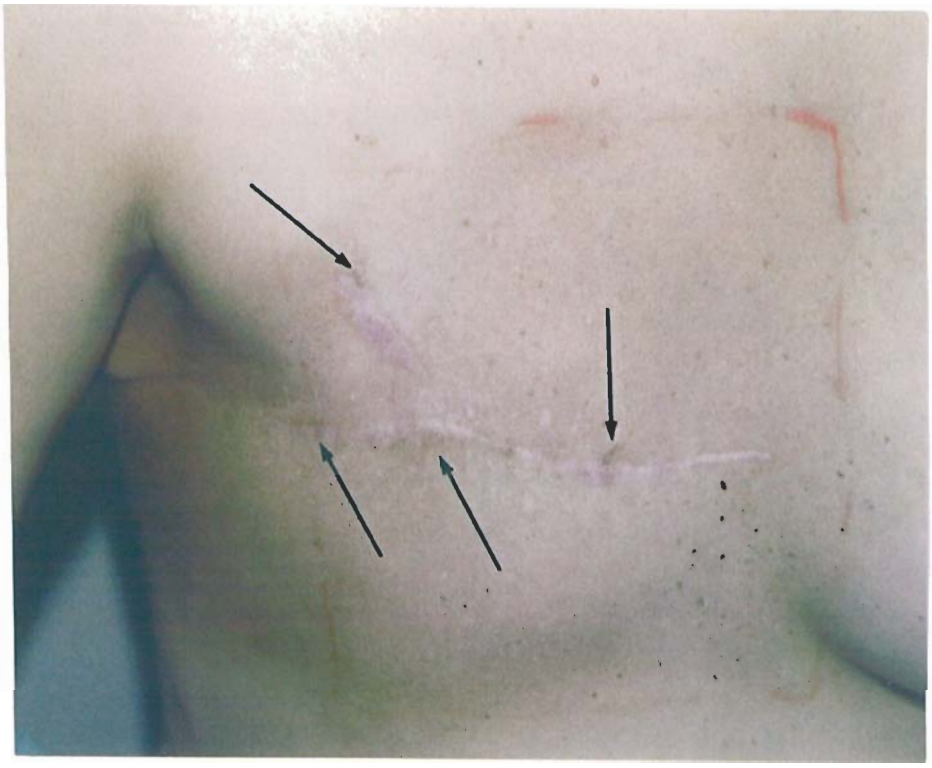


Figure A: Multiple small early recurrences are present, chiefly around the stitch holes in the scar (arrowed). The treatment area is marked and the slight redness of the skin indicates the maximum skin reaction from combined microwaves and X-ray Therapy.



Figure B: Six weeks later there is no clinical evidence of disease. This lady developed secondaries in the pelvis which was treated by the same method and she was well when last seen 8 years later.



Figure A: Having had a left mastectomy followed by X-ray Therapy (the size of the field is that of the square area of recurrence) and then developed a further cancer in the right breast, received several courses of cytotoxic chemotherapy, hormone manipulation without effect this patient was in a difficult predicament. The radiotherapy records showed that a dose of 5,200 rads had been delivered to that square area.



Figure B: Demonstrates how X-ray Therapy to the right breast and the area of recurrence can provide excellent palliation. 15 doses of microwaves each followed by 160 rads of X-ray Therapy on alternate days produce this result. There is two months time interval between the photographs. This area remained stable and well healed for 13 months when she died of liver secondary cancer which was not treated. The method has been replaced by glucose blocking agents and microwave therapy without the use of x-rays.



Figure A: Within weeks of her mastectomy this lady developed a rapidly spreading infiltrating recurrence. Conventional radiotherapy can be tried but because this cancer is recurring in an operated on area it is usually non responsive.



Figure B: Complete disappearance of the cancer infiltration has occurred. The scar shows a lumpy infiltration which is not cancer but is what is termed a keloid. This photograph is two months after Figure A. No local recurrence was seen in the 5 year follow up of this lady.



Figure A: Another patient similar to the lady on on Page 69. A recurrence growing mainly within a post-operative irradiated area. She had had 6 months of cytotoxic chemotherapy without effect.



Figure B: A single dose of 500 international units of soluble insulin followed by radiowaves produced this picture one month later. This lady had severe symptoms of low blood sugar and at her request was then treated with radiowaves and low dose X-ray Therapy. These secondaries completely disappeared. Her fate is unknown.



Illustration A: Cancer en cuirasse. The whole chest wall is infiltrated by a solid mass of recurrent cancer after extended surgery for late stage cancer which was not completely removed at operation. Extensive hormonal and chemotherapy had been tried and abandoned. Photograph taken 12 January 1976.



Illustration B: Photograph taken 20 January 1976 after a single treatment using 2000 international units of soluble insulin intravenously followed 4 hours later by radiowave therapy.



Illustration C: After a further treatment using the same methods. Photograph taken 3 February 1976. Two more treatments were given in February 1976.



Illustration D: Photograph taken 20 June 1976 shows almost complete resolution of the malignancy and she was extremely pleased with the result. There was no recurrence seen when she was last examined in 1979, three years later.



Patient #5 - Miss S.

27 June 1979.

Biopsy site.

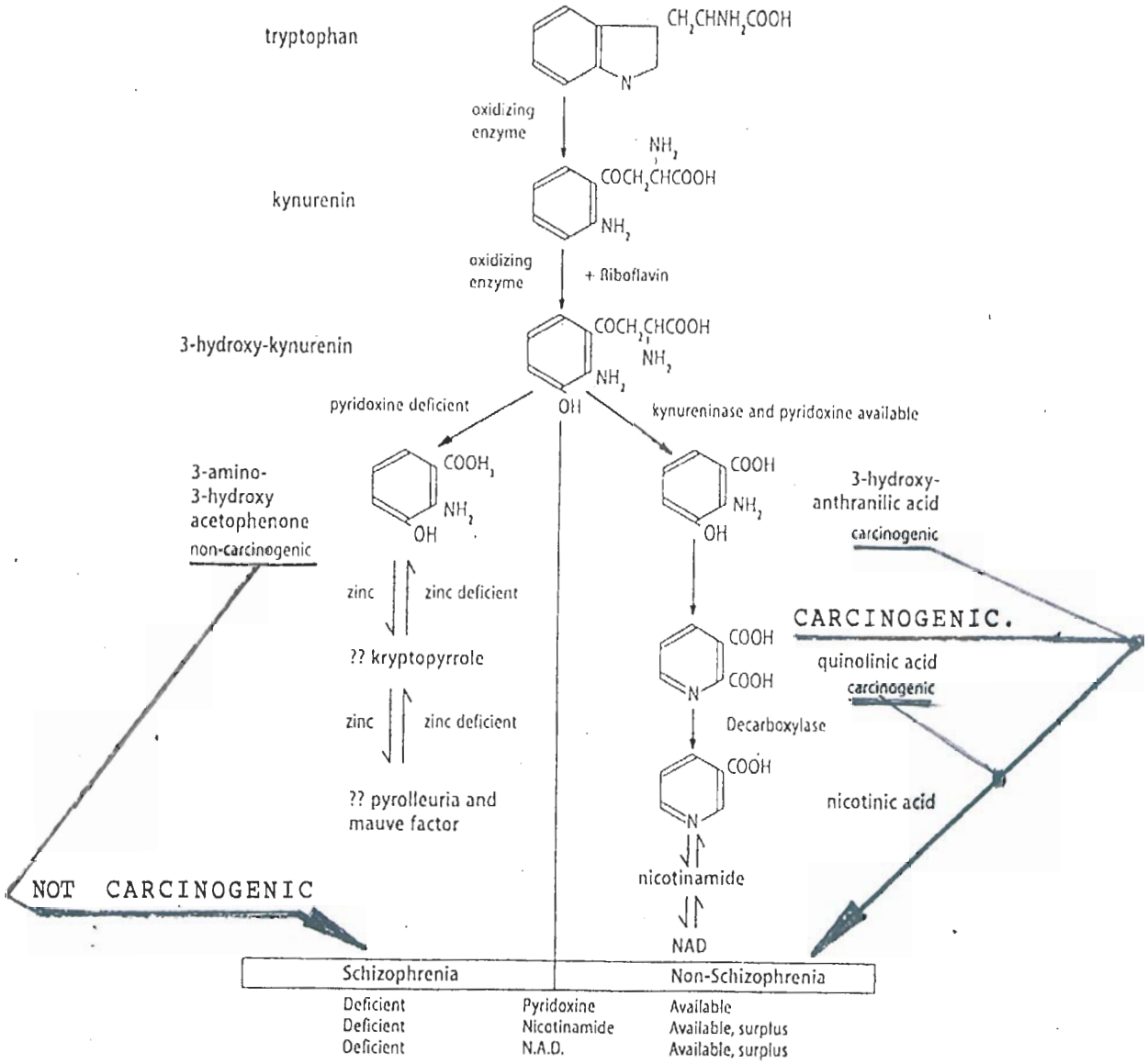
X-ray therapy daily using 150 rads uniformly through primary and regional lymph nodes areas. On Mondays, Wednesdays and Fridays UHF preceded the x-ray therapy by no more than 20 minutes.



3 August 1979: The biopsy site with the cancer's resolution.

This patient suffered from severe Schizophrenia. A year or so later she was well without evidence of cancer. She was then hospitalised in another state and her outcome is untraceable.
Our cancer records record fewer than 4 schizophrenics diagnosed and treated for cancer in every 10 years.

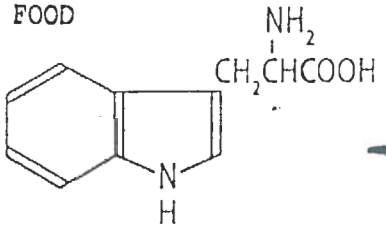
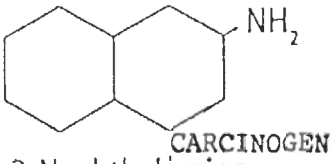
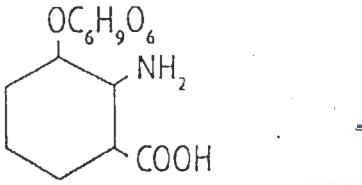
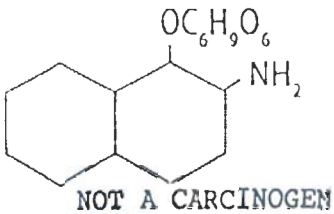
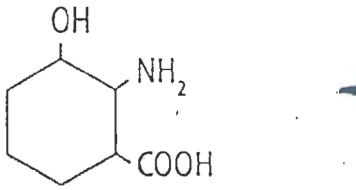
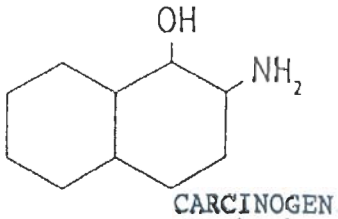
CARCINOGENESIS IN SCHIZOPHRENIA.

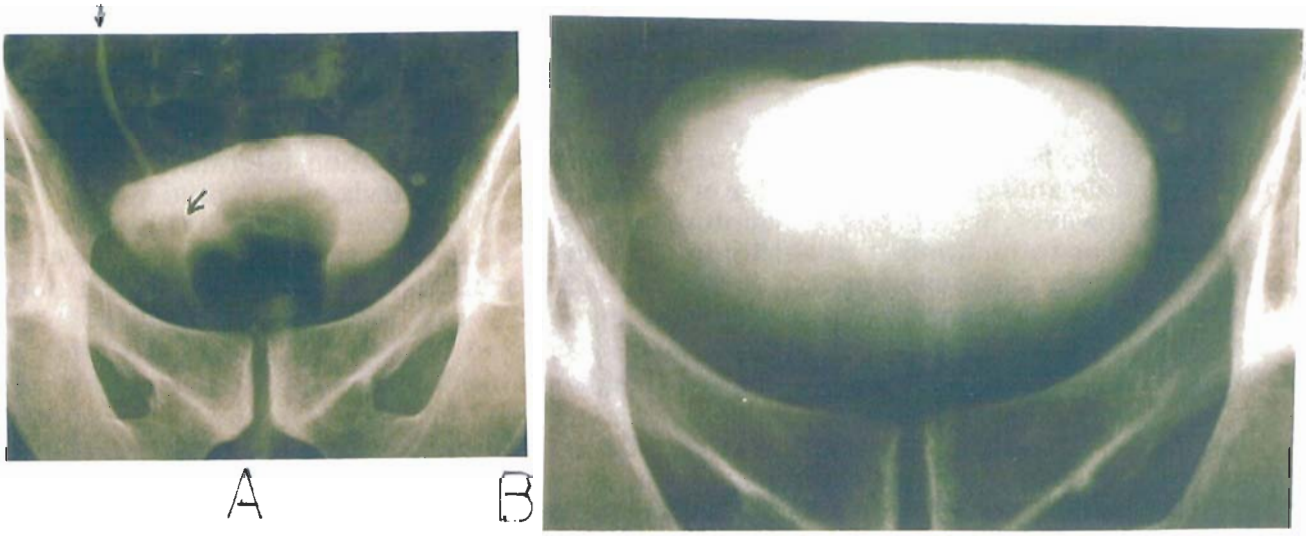


Dr. Abram Hoffer, M.D.,Ph.D, treats Schizophrenic patients with nicotinamide and/or niacin in high doses. His practice in Canada reports an almost zero level of cancer (fewer than 1 in 10,000) and all excrete kryptopyrrole in their urine, which is coloured mauve with it.
Tryptophan is an amino acid, (which causes Hartnup disease if poor absorption is present from birth) which is normally oxidised to kynurenin and in the presence of Riboflavin oxidises to 3-hydroxy-kynurenin. See chart above, from the top. Schizophrenia is pyridoxine deficient (left arrow to L. column) and downwards ending with the mauve factor inthe urine. NONE ARE CARCINOGENS, don't cause cancer. The Non-Schizophrenic (right column) individual produces 2 vigourously active Carcinogens, 3-HYDROXY-ANTHRANILIC ACID,& QUINOLINIC ACID.
The patient with breast cancer on the previous page (66) was tested and her urine contained the mauve factor and had kryptopyrolle in moderate concentration. One other schizophrenic cancer patient was tested with similar findings 2 years or more later. The local psychiatric Doctors were approached but were dis-interested.

Since this experience, when asked by a student how to avoid getting cancer, the reply was always "become a Schizophrenic!" The next page, 68, is a summary by Dr. David Wallace, F.R.C.S.,Chief of Urological Surgery in The Royal Marsden who analysed the carcinogens in urine from males having radiotherapy for their prostate and bladder cancers.

Spontaneous Carcinogenesis in Humans: Tryptophan Metabolism.

Spontaneous Urinary Cancer	Steps	Industrial or Chemical Cancer
FOOD  Tryptophan	Substance absorbed	CONTAMINATION  CARCINOGEN 2-Naphthylamine and other 2-Amines
	DIGESTION	
 NOT A CARCINOGEN Tryptophan Glucuronide	Product formed in liver and excreted by kidneys	 NOT A CARCINOGEN Naphthylamine Glucuronide
	IN URINE	
 CARCINOGEN 3-Hydroxy-Anthranilic Acid	Carcinogens liberated in the urinary tract by enzyme Beta-Glucuronidase and (?) reabsorbed into the bloodstream	 CARCINOGEN 2-Amino-1-Naphtol

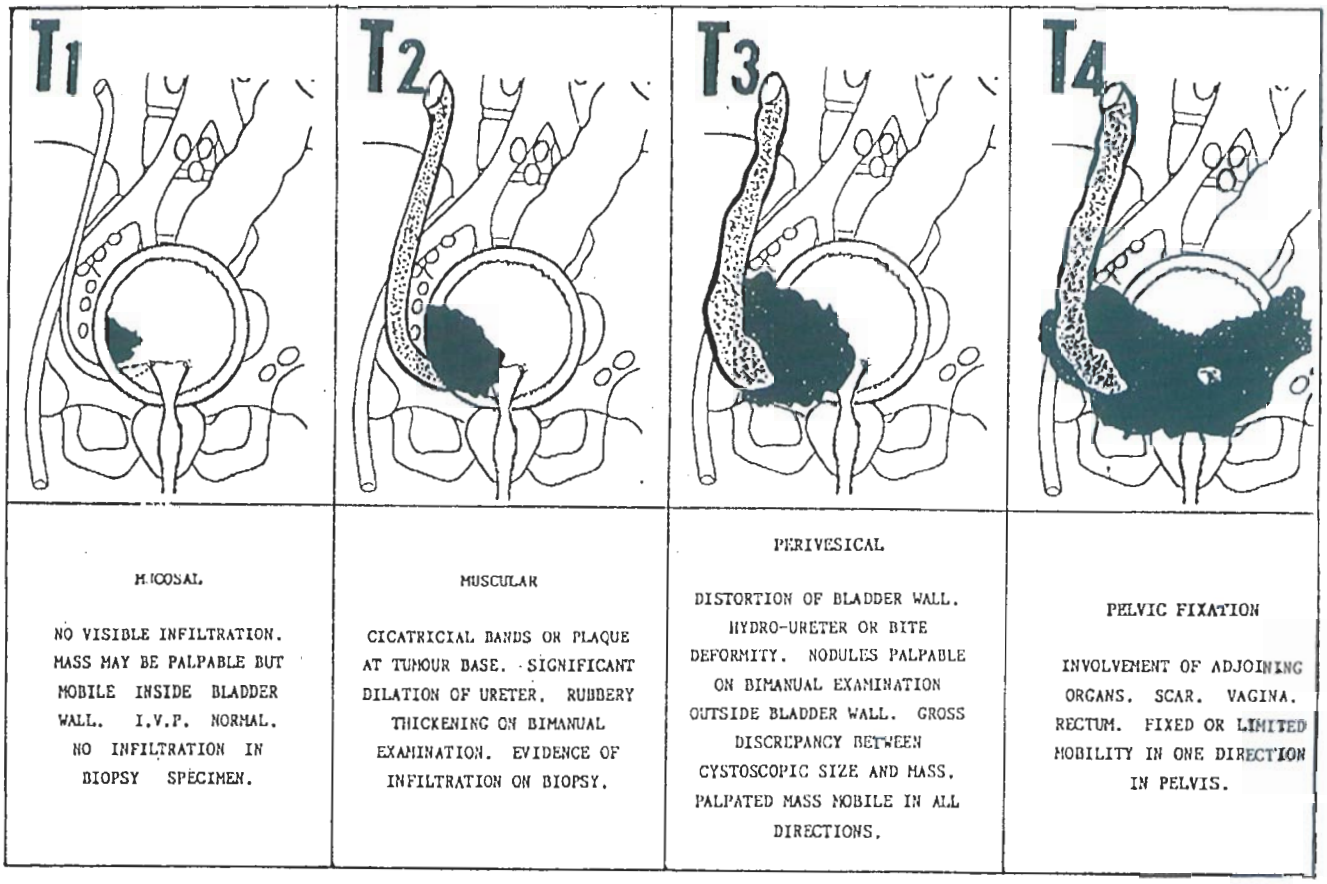


A

B

A. A carcinoma (arrowed) in a bladder which has invaded the bladder wall and partially obstructed the right ureter (tube from the kidney seen as a pale stripe above the bladder).

B. Complete resolution after microwaves before x-ray therapy. An x-ray four years later. This method will clear the bladder of cancer in 90% of patients: x-ray therapy alone to an higher dose will only clear 15-20% of similar cancers.



Bladder cancer - A predominantly male disease with incidence proportional to prostatic obstruction. Females usually only suffer from it when they have neurological (eg paraplegia, multiple sclerosis etc) causes of retention of urine. T refers to the primary Tumour at the time of the patient's symptoms causing referral for diagnosis. The numbers 1 to 4 refer to the extent (stage of development) of the cancer at first examination. All these cancers arise from stem cells in the bladder's lining (a special layer called transitional cell epithelium) and although every patient has a "different" cancer pattern of growth behaviour they are all transitional cell cancers. Therefore at diagnosis and x-ray treatment:

T_1 has a long history, often 1 to 2 years, grows slowly and is usually curable with x-ray therapy (80% survival). Confined to bladder lining. Break at B_1 (see below).

T_2 has a shorter history, usually under 1 year, grows faster and responds less well - 60% survival. Extends into the bladder wall. Break at B_2 (see below).

T_3 has a short history of a few months, grows rapidly, responds poorly, 15% survival. Extends outside the bladder. Break at B_3 (see below).

T_4 has a very short history of a few weeks rapid growth, rarely responds, zero survival. Grows and fixes bladder to pelvic bones. Break at B_4 (see below).

In normal bladders glucose metabolism controls perfection of the bladder lining by a chain of connected evolved steps: <-- arrows denote control from right to left.

ER_{ex} <-- Pasteur Reaction (PR) <-- Anaerobic Glycolysis (ANG) <-- B_4 - Aerobic Glycolysis (AG) <-- B_3 - Citric Acid Cycle (CAC) <-- B_2 - Phosphogluconate cycle (PGC) <-- B_1 - Hormones <-- Genes/Nucleoli. Breaks in the chain cause cancer: Breaks at B_1 to B_4 create cancer types T_1 to T_4 respectively.

Therefore a patient:

with a T_1 cancer has partial control of its ER_{ex} by PR, ANG, AG, CAC and PGC,

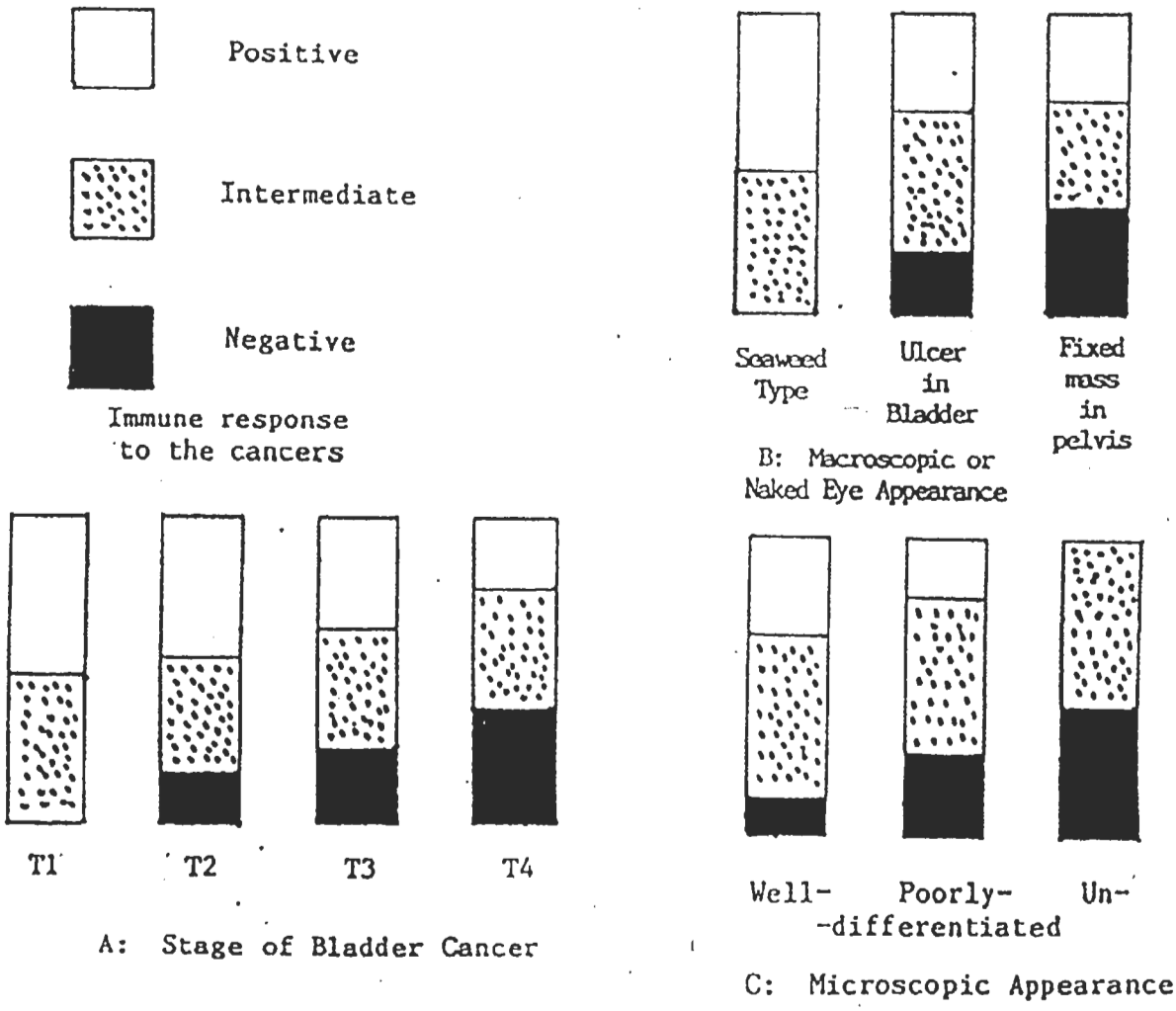
with a T_2 cancer has lesser control of its ER_{ex} by PR, ANG, AG and CAC,

with a T_3 cancer has poorer control of its ER_{ex} by PR, ANG and AG,

and with a T_4 cancer has very little control of its ER_{ex} by PR and ANG only.

THE IMMUNE RESPONSE TO CANCER IS OBVIOUS CLINICALLY.

The appearances of each cancer are due to varying degrees of control exerted on ER_{ex}. The control systems of T_1 to T_4 encompass fewer and fewer biochemical reactions as the cancer becomes more and more aggressive. These steps correspond to crude changes in the "immunological" properties of T_1 to T_4 cancers.



The patient's response to spontaneous cancer is inborn and cannot be altered by any known method. The cancer grown in a rabbit produces an "immune" response in the rabbit. The rabbit's blood cross-reacting with the cancer patient's blood can prove the presence and extent of or absence of the patient's "immune" response. Whilst believed that these findings prove that cancer may create "immunological" responses in its host it appears that this response is created in relationship to the length of the glucose metabolic chain still attached to ER_{ex}. In other words human immunity to cancer is non existant and the clinical picture is derived solely from the rate of disruption arising from cancer's rate of growth.



Figure A: A lady with a recurrent cancer of the uterine cervix, filling the left side of the pelvis and blocking the lymphatics and veins draining the left leg. Gross swelling (oedema) of the leg is present. Previous treatment of surgery for a Stage 1 carcinoma of the cervix which recurred and was then treated with external X-ray Therapy and intravaginal radium without controlling the disease. This is a common complication when surgery is used as the first treatment for cancer of the cervix. As international figures show the primary treatment of choice for cancer of the cervix is with radiation therapy.



Figure B: Three weeks treatment using daily injections of cystine and oxidised glutathione followed by microwaves have led to a complete regression of the malignancy. This photograph was taken 3 months later. Approximately a year later she developed other secondaries and elected for treatment elsewhere and died shortly afterwards.



Figure A: A swollen left leg due to recurrent rectal cancer after a resection of the rectum through the abdominal route. The swelling of the leg is due to blockage of the lymphatics and veins as a result of pressure on these vessels re-entering the pelvis.



Figure B: Two months later returned to normal after an excellent regression in the mass of cancer in the left side of his pelvis. Treatment was with 2 15 day courses of cystine and oxidised glutathione. He had other multiple secondaries in the lungs and the liver which were fairly large and the response of the big secondaries in these 2 sites was poor. However he obtained complete palliation of his disease and survived almost a year after this treatment.

NON HODGKIN'S LYMPHOMA

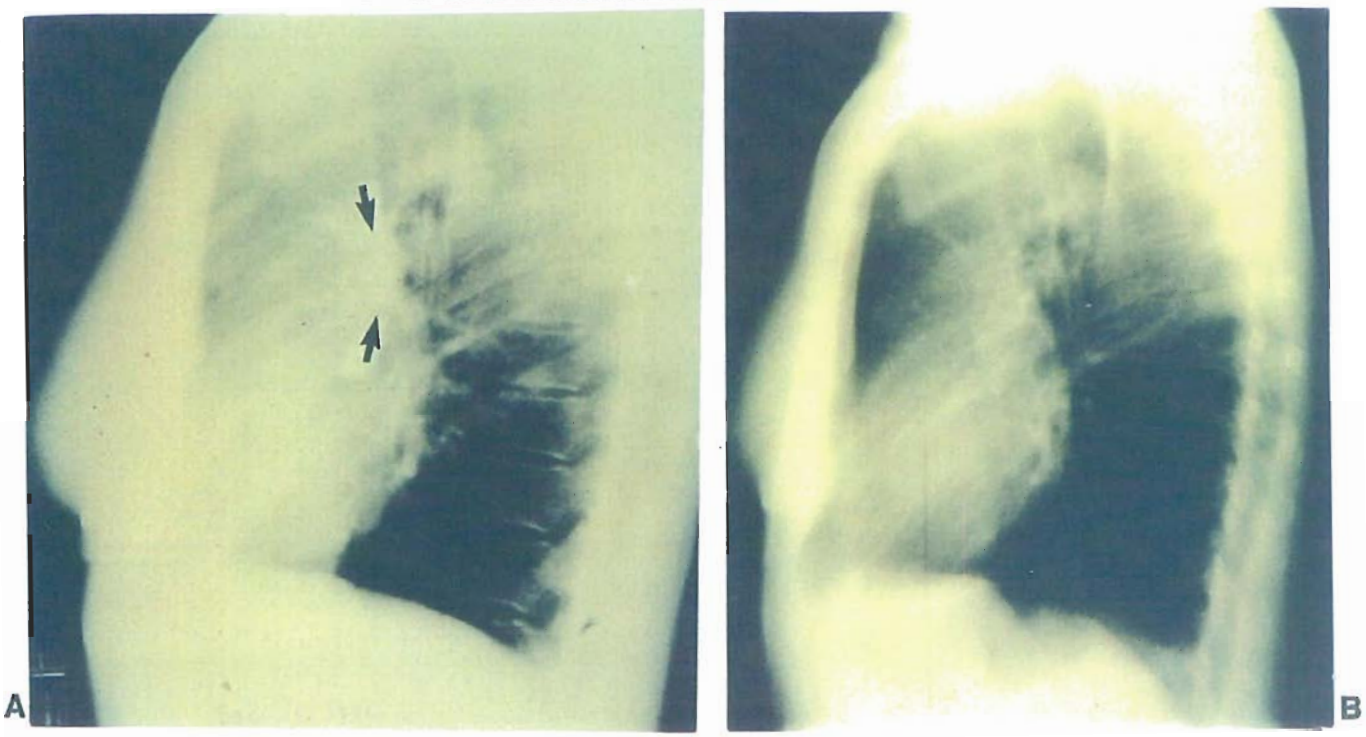


A. Widespread nodules of malignant lymphoma of non-Hodgkin's type which continued to grow after 18 months of cytotoxic chemotherapy. Treated using 434 MHz before low dose x-ray therapy. The patient was bedridden from shortage of breath. Photograph taken 12 September 1975.

B. One month later after 12 doses of 434 MHz therapy immediately followed by 150 rads whole chest x-ray therapy. From the response calculations show it is probable that each malignant cell contained two or a maximum of three ER_{ex} units per cell. Photograph taken 7 October 1975.

C. Fifteen years after B. Patient was now asymptomatic and leading a normal life. Photograph taken 28 October 1990.

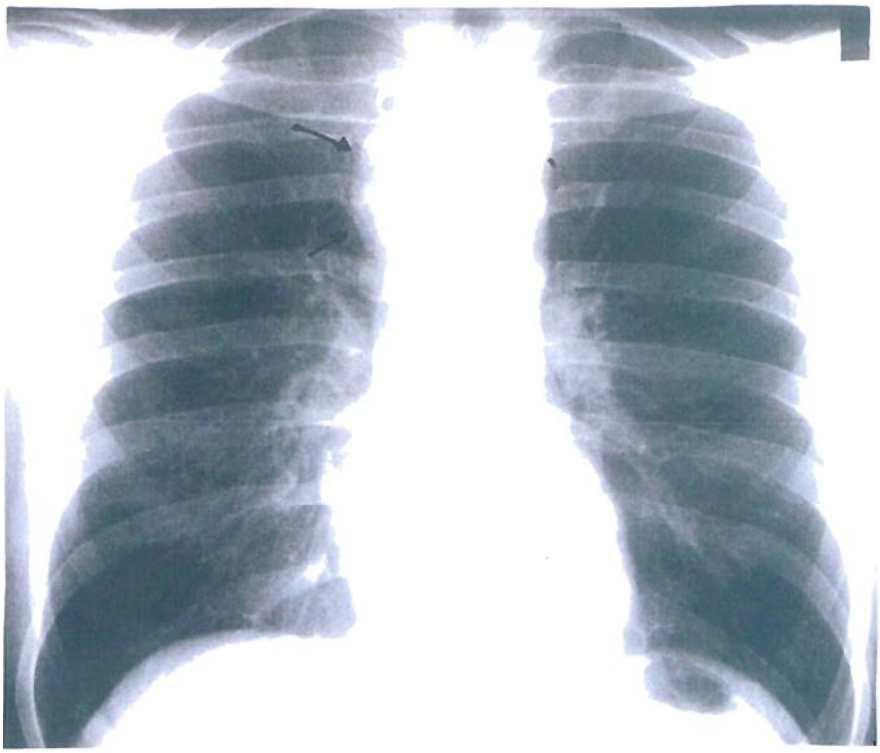
LUNG SECONDARY FROM KIDNEY CANCER



A. A patient with a secondary causing collapse of part of the left lung due to a secondary in the hilum of the lung arising from a primary in the left kidney which had been removed. Photograph taken 25 August 1993.

B. Complete resolution of the secondary has occurred with re-expansion of the lung on 10 November 1993. No further disease appeared in the next 18 months. Treated with anaerobic glycolytic blocking agents and UHF radiowaves.

RECURRENT HODGKIN'S DISEASE



A. A recurrence of Hodgkin's disease (arrowed) in the upper chest. Previously irradiated with x-rays to the limit of tolerance. Photograph taken 10 September 1974.



B. After treatment with anaerobic glycolytic blocking agents and UHF therapy the recurrence disappeared. Five years later no active disease. Photograph taken 19 October 1974.

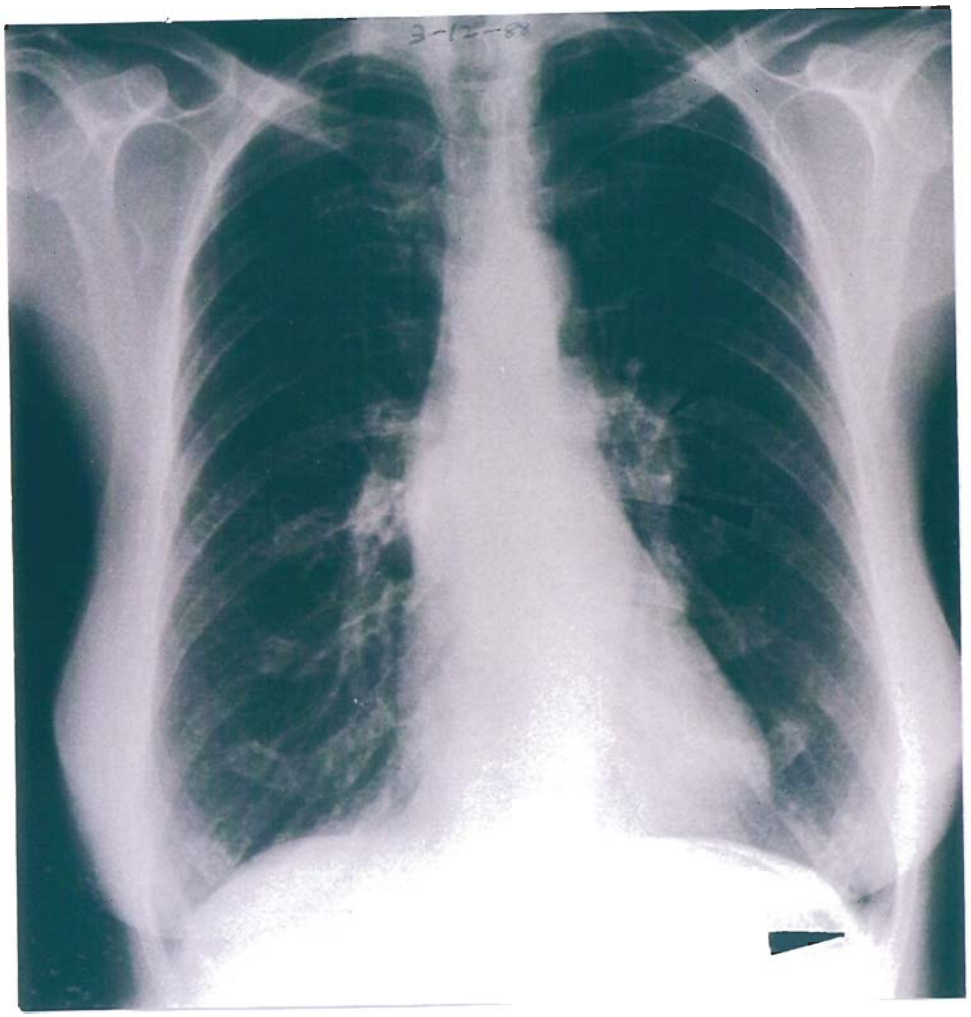


Figure A: A lady with a left sided pleural effusion and deposits of cancer from a secondary carcinoma of the ovary. Her primary disease had been treated with cytotoxics for approximately 9 months after surgical removal of the ovary itself. She had proven evidence of residual cancer in the peritoneal cavity as well as in the left chest. X-ray taken on 3 December 1988.

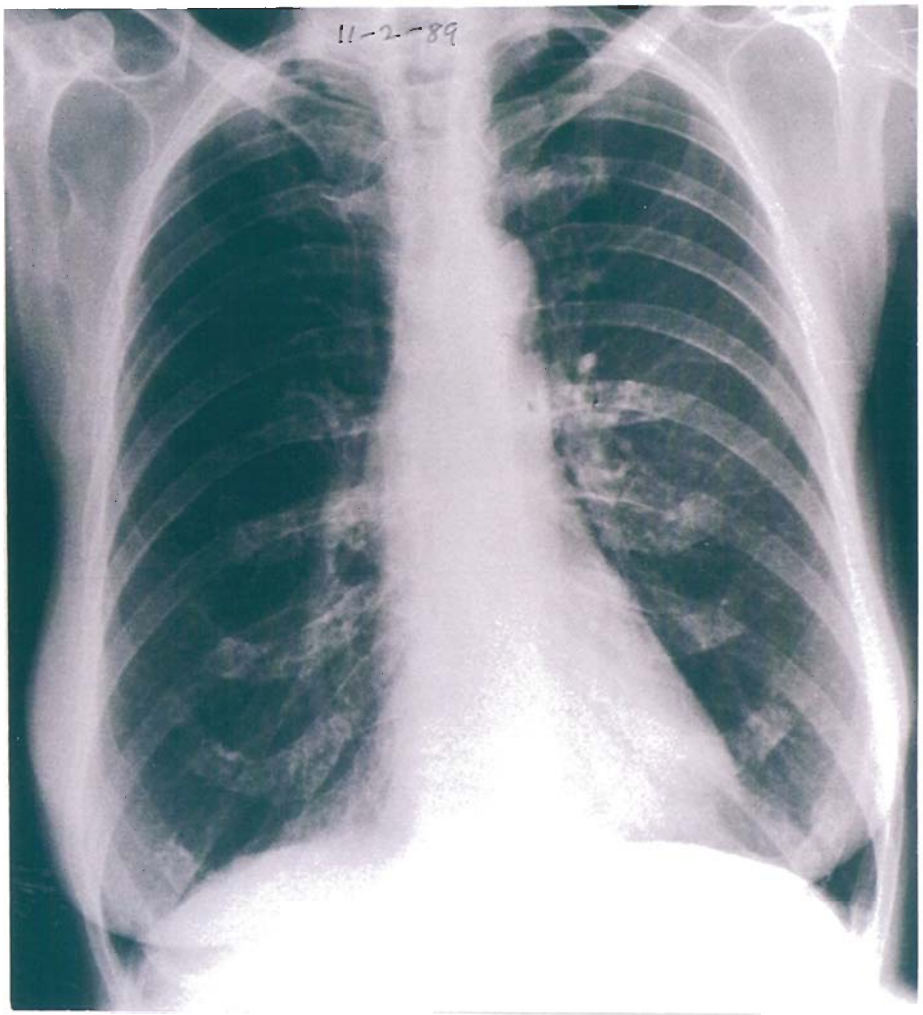


Figure B: An x-ray of the patient in Figure A 14 months later. Four courses of glucose blocking agents plus microwaves in the intervening period had caused complete clearance of her residual abdominal disease and the secondary cancer in the left chest. X-ray taken 11 February 1989.

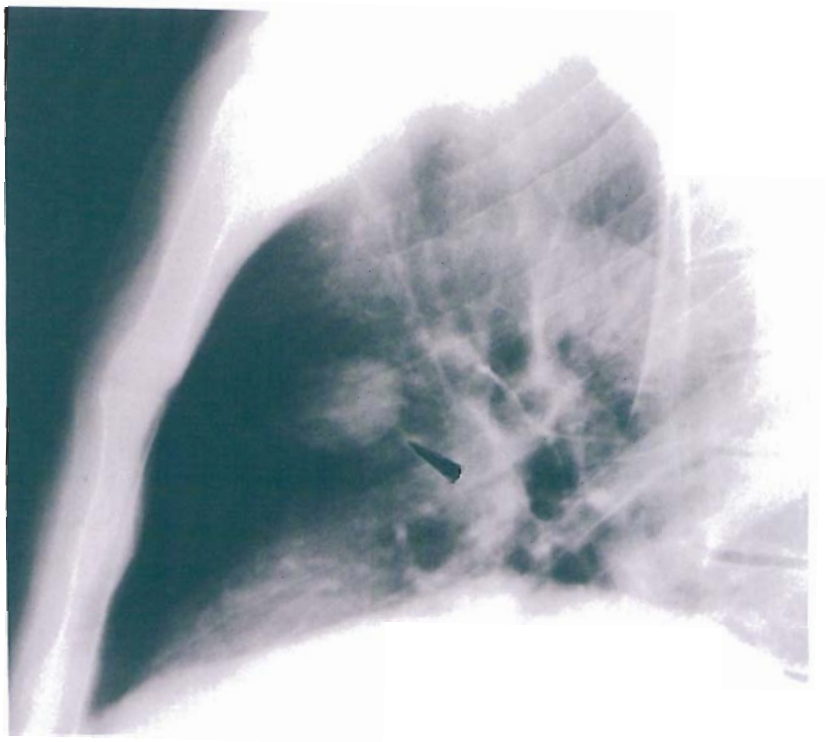


Figure A: A sideways x-ray of a male patient aged 56 with a secondary in his chest from a bladder cancer. This has been proven by needle biopsy. His bladder was treated 3 years before for a Stage 3 primary cancer in the bladder and he has remained free of disease in the bladder since then.

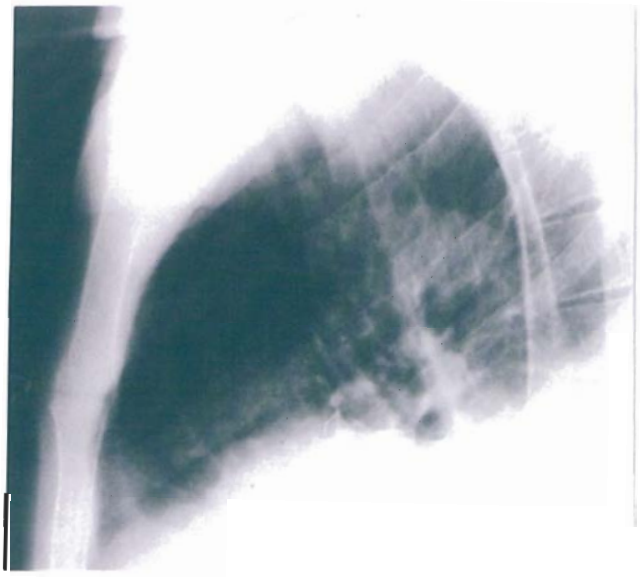


Figure B: X-ray taken 2 months after Figure A to show the effect of 15 doses of glucose blocking agents and microwaves in clearing the secondary disease from the lung.

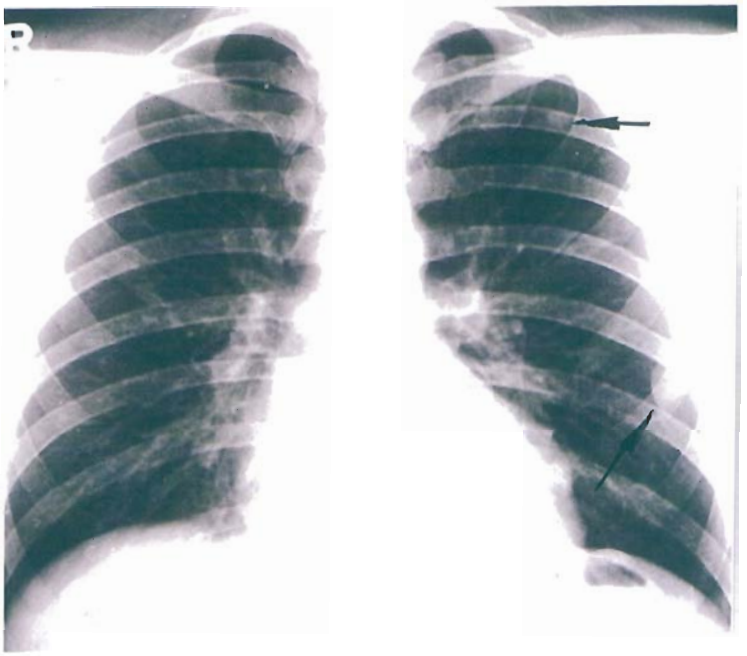


Figure A: A patient with metastatic bladder cancer in the left chest (arrowed). Eighteen months before this x-ray he had had combined microwaves and X-ray Therapy for a carcinoma of the bladder with complete regression of the tumour. His bladder was clear on examination when this chest x-ray was taken on 22 April 1993.



Figure B: A 15 day course of treatment completely eliminated these two small secondary cancers and five years later remained free of disease. X-ray on 15 May 1993

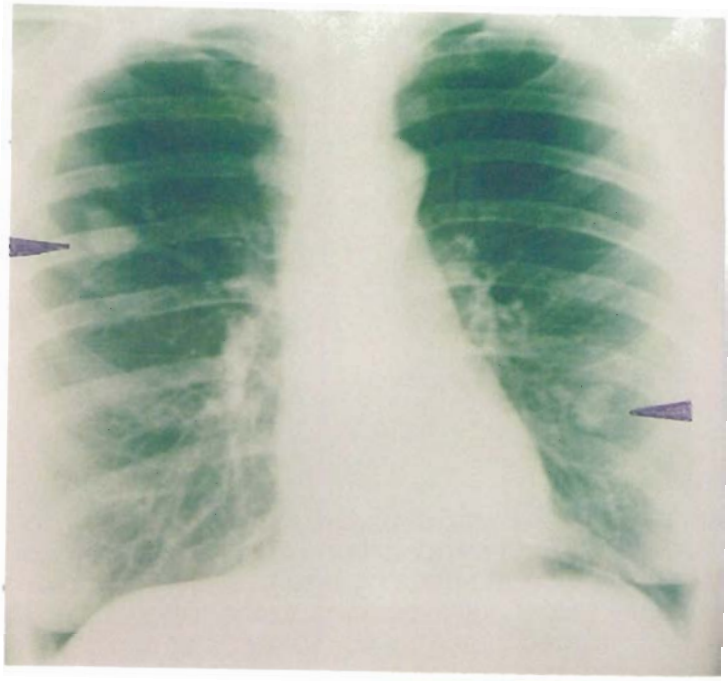
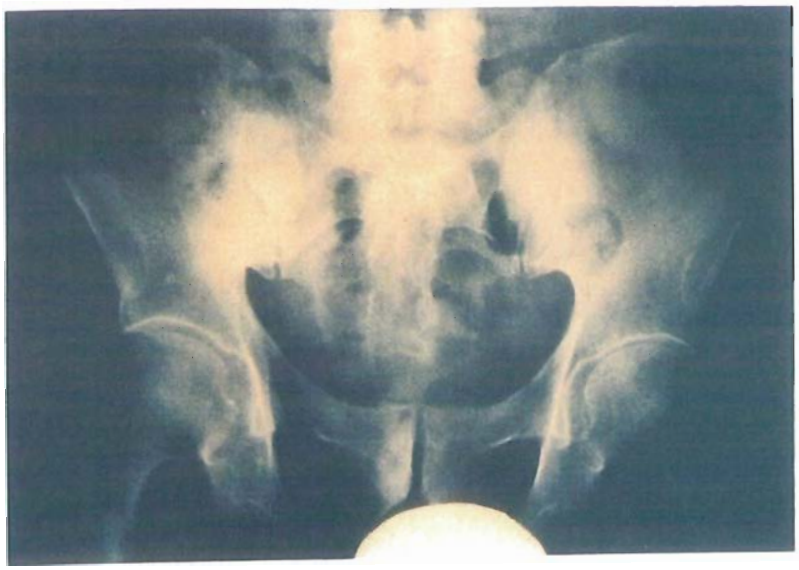


Figure A: Secondary malignant deposits from a cancer of the kidney which had previously been removed by surgery. Three courses of treatment with cytotoxic chemotherapy had been ineffective. The masses are arrowed.



Figure B: Following 15 days treatment using intravenous cystine and oxidised glutathione followed by radiowaves on each occasion this x-ray 2 months later shows complete resolution of the secondaries. She remains well 3 years later.

PROSTATE CANCER



A. A patient with cancer of the prostate treated with UHF radiowaves and x-ray therapy with complete control of his local disease in 1987 developed bone secondaries in his pelvis. He was given a 15 day course of anaerobic glycolytic blocking agents and UHF radiowaves after his bone scan had indicated secondary cancer corresponding to the x-ray destruction of the bones in his pelvis. His bone scan has returned to normal 48 months later and he now has normal Prostate Specific Antigen levels. No haematological or biochemical changes have been observed in his blood to suggest that there are complications or sequelae from this method of therapy. Photograph taken 19 March 1987.



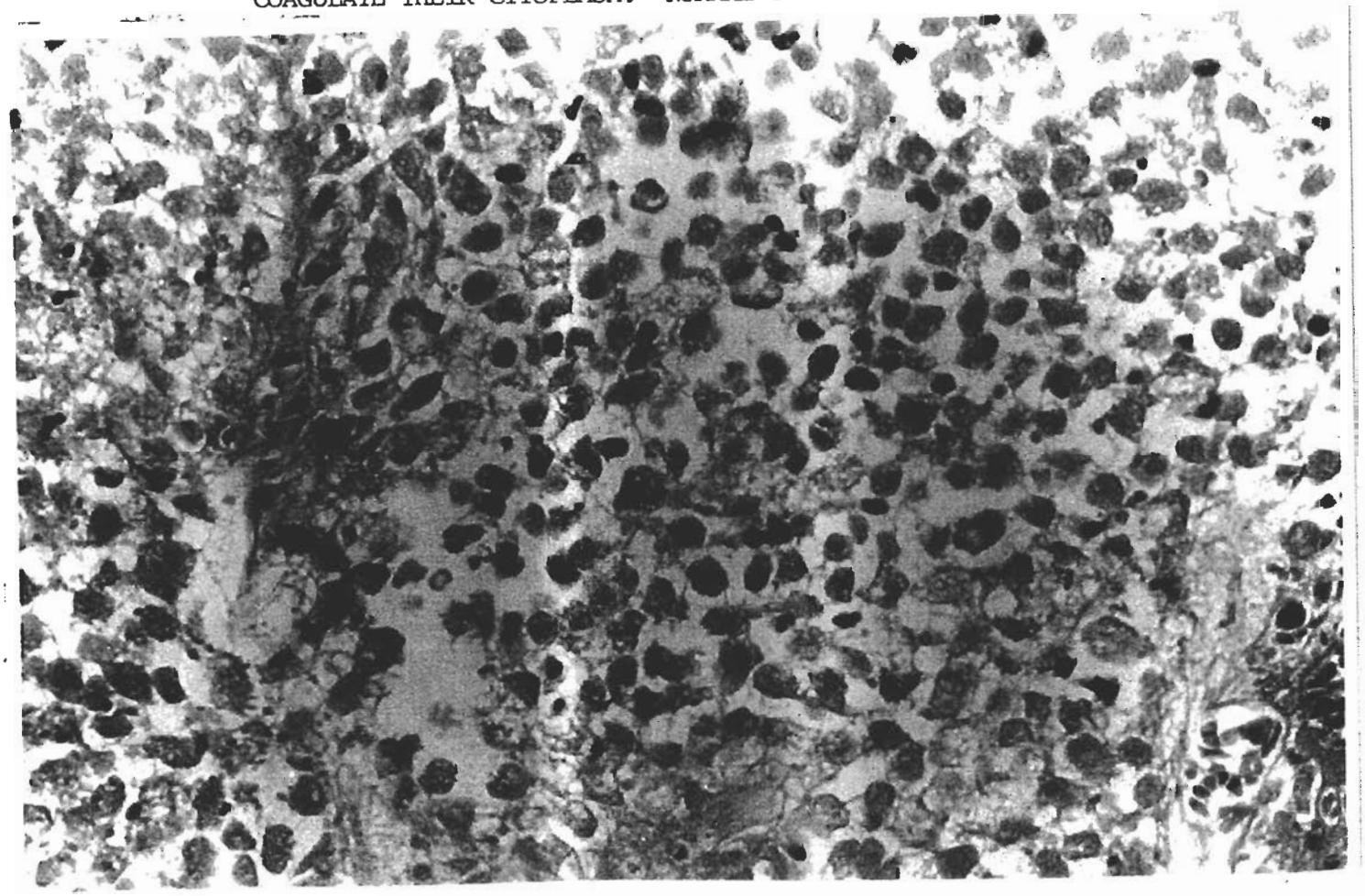
B. Patient as in A, one month later. The whiteness indicates that the bone has solidified by replacing the cancer areas with calcium. Now he is asymptomatic. Photograph taken 23 April 1987.



C. Patient as in B, one year later. An excellent result with his secondary cancer under control. Photograph taken 19 May 1988.

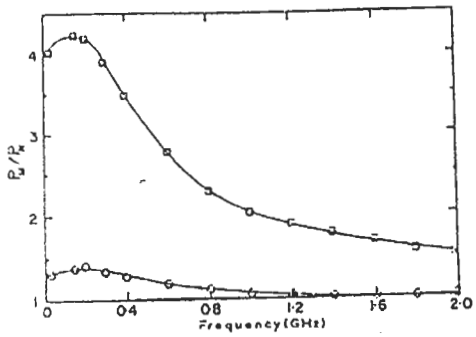
THERMAL EFFECTS OF 434 MHz. U.H.F. RADIATION.

HIGH DOSES DEPOSIT SUFFICIENT ENERGY IN CANCER CELLS TO COAGULATE THEIR CYTOPLASM: NORMAL CELLS UNCHANGED.



A photomicrograph from a patient with multiple secondaries from prostatic cancer. This was a specimen from a pelvic deposit. The elongated structure of the bone septa are seen running diagonally across the photograph. This appearance was obtained eight days after 5 consecutive days of U.H.F. A few poached egg type cells appear with the cytoplasm stained grey and the nucleus visible as a light outline. The black nuclei are those of the acute inflammatory response from the normal white blood cells infiltrating the marrow. In many areas this inflammatory reaction is eating away the coagulated cancer cells. Limitation of the damage to the cancer cells appears complete.

From Radiation, Biology, Physics
June 1980, 6, 681-687, JOINES et al



Malignant to normal power absorption (P_M/P_N) given as the ratio of Power absorbed/Power applied for a breast cancer □ and skeletal muscle O tissues.

INTERNATIONAL CLINICAL HYPERTHERMIA SYMPOSIUM '88

presented by

Indiana University School of Medicine

Department of Radiation Oncology

International Clinical Hyperthermia Society

May 24-27, 1988

Indianapolis, Indiana

87

NON-HODGKIN'S LYMPHOMA TREATED BY COMBINED 434 MHZ. RADIOWAVES AND X-RAY THERAPY: RESULTS OF ALL PATIENTS (37) SEEN BETWEEN JUNE 1974 AND JUNE 1984.

JOHN A. G. HOLT.
RADIOTHERAPY CENTRE, 24Salvado Rd., Wembley, 6104. W.A.

1. Primary Retroperitoneal Site. 7 patients, all alive without evidence of lymphoma or sequelae, 3 at 13yrs 2 at 12 years, 1 each at 11 & 8 years. None had C.N.S involvement or received C.N.S. radiation.
   Generalised lymphoma. 30 patients.
2. 12 treated. 5 had previous local X-ray therapy before June 1974. 8 alive without evidence of lymphoma or sequelae, 4 at 13 yrs, 1 at 12 yrs, 2 at 11 yrs, & 1 at 6 yrs. 1 LSO, well at 10 yrs. 1 died at 11 yrs from silicosis & pneumonia. 2 died at 13 and 10 yrs with lymphoma. None had C.N.S. involvement or received C.N.S. radiation.
3. 18 patients in relapse after cytotoxic therapy, some also having had local X-ray therapy before June 1974, were treated by combined therapy often including further cytotoxics. Only 2 are alive at 6 & 3 yrs, both with active disease. 16 died, at 8,7,4,4,3,3,2,2,2,2,1,1,4 under 1 yr. 7 had C.N.S. involvement and received radiation to the C.N.S.

Conclusions. 1. Combined 434Mhz radiowaves and X-ray therapy is the treatment of choice for Non-Hodgkins Lymphoma. 2. Any cytotoxic chemotherapy is incompatible with long term disease free survival. 3. Central Nervous System involvement with lymphoma appears to be an iatrogenic effect of the currently administered cytotoxic chemicals.

TITLE "37 PATIENTS WITH NON-HODGKIN'S LYMPHOMA TREATED BY COMBINED RADIOWAVES AND X-RAY THERAPY

PRESENTED BY J.A.G. HOLT

37 Non-Hodgkin's lymphoma patients were referred for treatment between June 1974 and June 1984. All were proven by biopsy and were of various histological types. All 37 had the diagnosis of malignant non-Hodgkin's lymphoma confirmed by the diagnostic panel of the Leukaemia & Allied Disorders Committee of the Cancer Foundation of Western Australia. The patients were divisable into three clinical groups.

7 who suffered from primary retro-peritoneal disease were treated with combined radiowave and whole abdominal radiation to an average tumour dose of 3,300 rads. The most common treatment course was to give radiowaves followed by 150 - 160 rads uniformly distributed radiation from either a Telecobalt or a 6MEV accelerator. All 7 are alive and well today without evidence of disease or haematological abnormalities. One patient has had a malignant melanoma removed from the leg, one patient has had multiple skin cancers treated. 2 patients have minor renal impairment, one has moderate hypertension. 3 patients have needed treatment to metastatic nodes in the neck with similar techniques. TABLE 1.

12 patients have been treated who had generalised non-Hodgkin's lymphoma. Some had had x-ray therapy to isolated lesions before 1974 when the radiowave apparatus was put into clinical use. 2 have died of lymphoma at 11 and 10 years respectively, 1 has been lost sight of at 10 years and one died of a farming accident at 13 years. The remainder are alive, 4 at 13 years, 1 at 12, 2 at 11 and 1 at 6 years. During this treatment period only 1 patient has required a blood transfusion and all the survivors are without sequelae of the radiation or haematological abnormalities. TABLE 2.

18 patients with generalised non-Hodgkin's lymphoma were treated who had had previous treatment with cytotoxic therapy or in whom cytotoxic therapy combined with radiowave was the first treatment given. Of the 18, 16 are dead, 2 are alive with active disease at 6 and 3 years respectively. 12 had needed multiple transfusions, all have had blood dyscrasias during treatment, 5 have had central nervous system involvement requiring whole brain x-ray therapy. TABLE 3.

From the experiences gained in this series of treatment it can be seen that whilst microwaves potentiate certain cytotoxics in their cancericidal effects, they also potentiate the side effects. Combined radiowaves and cytotoxics appear to be merely a palliative treatment for the treatment of non-Hodgkin's lymphoma. radiowaves and x-ray therapy appear to be a method with probable curative properties which does not suffer from long term complications. In those 18 patients who were treated solely with radiowaves and x-ray therapy, routine central nervous system irradiation was not used and no patients suffering from central nervous system involvement was seen. It is thus concluded that central nervous system involvement in non-Hodgkin's lymphoma is probably an iatrogenic complication of cytotoxic therapy.

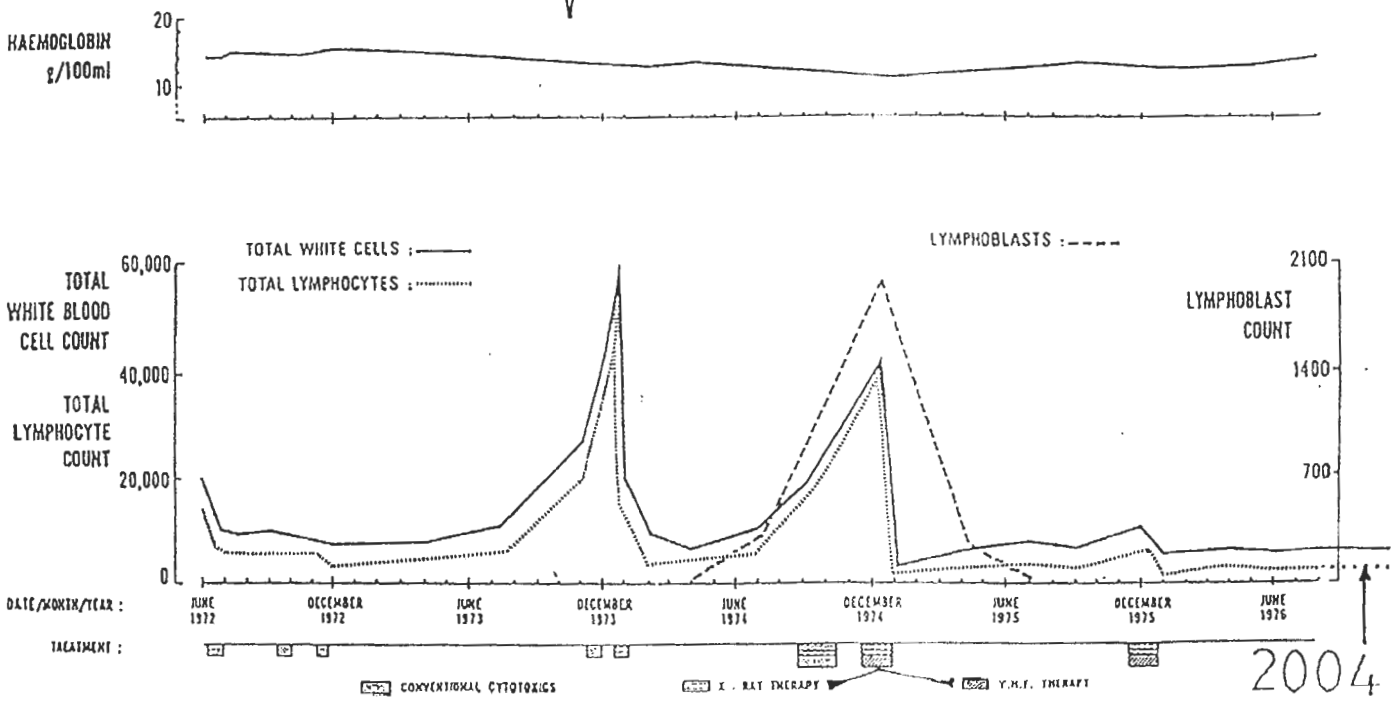
RADIATION ONCOLOGY CENTRE
24 Salvado Road
Wembley W.A. 6014

1. RETROPERITONEAL N.H.L.

INITIALS	YEAR OF BIRTH	SEX	HISTORY	PATHOLOGY	VHF & XRT		SEQUELAE OF DISEASE	OTHER COMMENTS	LAST KNOWN STATUS
					DATE	TOTAL DOSE RADS (cGy)			
C.C.	1949	M	Jejunal resection for small bowel obstruction	Reticulum cell sarcoma	AUG'74	4,200	Renal Impairment	Last examined in 1984	Alive/well in 1995
C.R.	1923	M	Ascites, bilateral leg oedema. Mediastinal nodes Retro mesenteric 20x15cms mass	Undifferentiated lymphocytic NHL	NOV'74 DEC'75	3,600	Slight renal impairment BP 160/85	Submandibular calculus treated 1981	Coronary artery grafts in 1998
J.D.	1923	M	Duodenal resection Feb'73 Local xray therapy. Ascites & recurrence Nov'74.	Undifferentiated lymphosarcoma	JAN'75	2,800	- - - - - - -	- - - - - - - - -	Deceased 1991
R.D.	1926	M	L.hydronephrosis; nodes in pelvis, abdomen, axilla & neck	Large cell lymphocytic NHL	FEB'75	3,000	June 1978 submental node treated	Has ulcerative colitis since 1944 skin cancers treated between 1979-88	Alive/well in 2004
E.D.	1925	F	Ascites, bilateral leg oedema groin nodes; 10x12cms primary	Undifferentiated lymphoblastic NHL Reticulum cell sarcoma	JAN'76	3,200	March 1977 L. neck node treated	- - - - - - - - -	Alive/well in 1995
B.V.	1926	F	L. leg oedema; pelvic, L. groin, abdo. masses	Lymphoblastic reticulum cell sarcoma	SEPT'76	3,000	- - - - - - -	Malignant melanoma L. leg removed 1983	Alive/well in 1995
D.W.	1926	F	L. leg oedema, pelvic mass partial small bowel obstruction from 15cms diam. mass	Undifferentiated lymphoblastic NHL	JAN'80	3,000	July 1980 L. neck node treated	- - - - - - - - -	Deceased 1994

TABLE 1. Retroperitoneal NHL. 7 patiences all alive and well without evidence of NHL in 1988. Only one, J.D. has had prior treatment (4,000 rads (cGy) localised to the duodenal/pyloric antrum region) and was retreated by whole abdominal combined VHF & XRT for local and pelvic recurrences. All pathology has been verified by the Leukaemia & Allied Disorders Committee of the Cancer Council of West Australia: some older descriptive terminology may be used in reports.

A summary of every patient referred with primary retroperitoneal malignant lymphoma between July 1974 and July 1980. Figure 1 is a chart of C.R.



→ C.R., Male, Age 53 in 1976. Primary retroperitoneal "undifferentiated Lymphocytic Non-Hodgkin's Lymphoma".

The acute lymphoblastic crisis in November 1974 was treated by a course of 14 doses of UHF therapy intermixed with 1000 rads to the whole abdomen and 600 rads to the neck, axillae, mediastinum and groins in 20 treatments.

In December 1975 13 consecutive days of UHF waves followed by 160 rads of whole body radiation were used to treat an apparent early relapse. Since this treatment he has been free of disease and has recently undergone surgery for coronary artery disease.

C.

2. GENERALISED N.H.L. UHF+XRT

INITIALS	YEAR OF BIRTH 19	SEX	PREVIOUS XRT	FIRST UHF PLUS XRT	STAGE AT FIRST UHF & XRT E = Extranodal site (s) S = Spleen involved B = Fever, weight loss etc.	SURVIVAL SINCE UHF & XRT: YEARS	SURVIVAL SINCE UHF & XRT: CLINICAL STATE	CAUSE OF DEATH
H.S.	32	M	-	JUL'74	III S	14	WELL	-
M.W.	28	M	1972	JUL'74	III E + S	14	WELL	-
A.P.	19	F	1973	AUG'74	III S	14	WELL	-
R.W.	10	M	1973	SEP'74	II E	14	WELL	-
G.C.	09	M	1972	SEP'74	IV	13	DEAD	ACCIDENT FARMING
L.I.	38	M	1971	JAN'75	II	14	WELL	-
R.S.	20	M	-	NOV'75	II E	11	DEAD	LYMPHOSARCOMA
M.G.	13	F	1971	FEB'76	III S	13	WELL	-
M.N.	29	M	-	MAR'76	II	13	WELL	-
W.B.	35	M	-	NOV'76	III	10?	?	LOST SIGHT OF 10 YEARS
L.D.	45	M	-	FEB'75	IV B	10	DEAD	LYMPHOSARCOMA
G.H.	50	F	-	JUL'81	II	07	WELL	-

TABLE 2. GENERALISED NHL + Non cytotoxic therapy group.

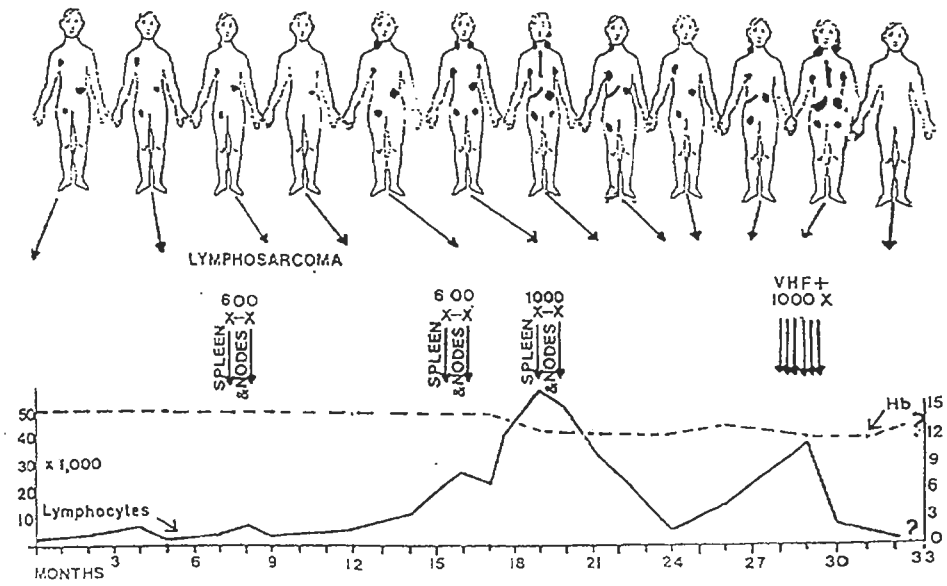
All 12 diagnosed by biopsy as variants of malignant NHL (Lymphosarcomata of various grades) & all diagnoses were confirmed by the Leukaemia & Allied Disorders Committee of the Cancer Council of West Australia. In this series only 1 patient (L.D.) required a blood transfusion. No other septicaemic, thrombocytopenic or anaemic episodes were encountered. G.C. died at age 77 after falling from his tractor whilst fencing.

No sequelae are seen amongst the 8 survivors who all appear normal. The staging is that used for Hodgkin's disease (in TNM - classification of malignant tumours:

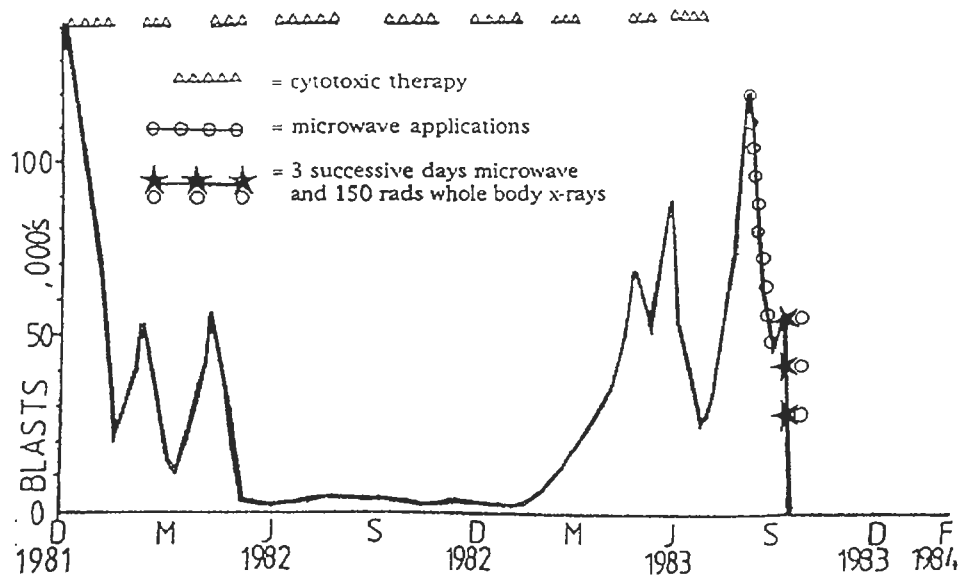
Pub: UICC 4th Ed. Springer Verlag Berlin, W. Germany 1987, p179).

Prophylactic whole brain XRT was not used in any.

A summary of every patient referred with generalised lymphoma who had NEVER received cytotoxic agents between July 1974 and July 1981. The last follow up was in 1988. The full details of M.W. are given.



The lymphocyte count and haemoglobin of M.W. (Figure 2 from diagnosis in December 1971. Conventional X-ray Therapy (X-X, total dose in rads) was given on three occasions and his final course of treatment of 6 days consisted of UHF waves followed by 160 ± 10 rads whole body X-ray Therapy. No further disease present when contacted in 1991.



Male, C.L, Age 32 in 1983 with acute myeloid leukaemia. Developed HIV, died of AIDS and at autopsy in 1988 had no evidence of leukaemia.

06



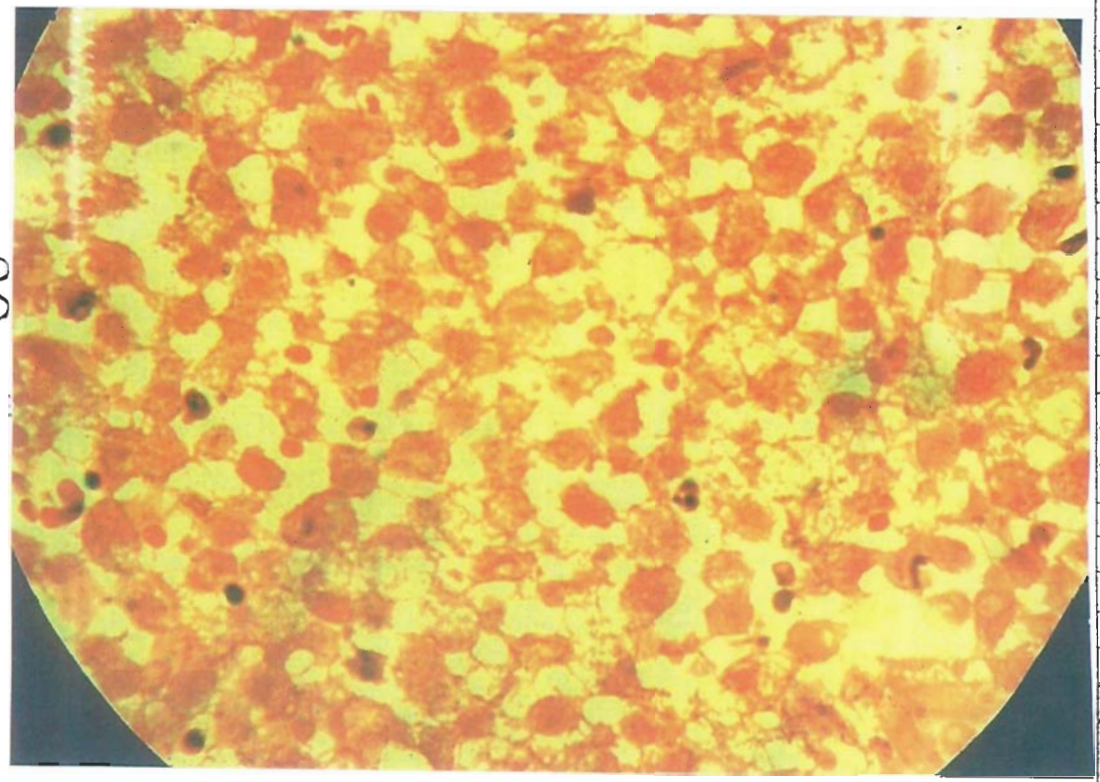
A. Patient GC, (No. 5 from page 90) who had extensive non Hodgkins Lymphoma & severe right hip pain due to deposits in pelvis & femur. Conventional X-ray between 1972-1974 to multiple body sites, including 3,000 rads to his rt. hip without relief. 2 deposits are arrowed and he was re fered for U.H.F. and X-rays. Starting on 15 January 1974 given 10 days of 160 rads, uniformly to body, scalp limit down to mid-femurs, width from mid Left to mid right of his outstretched arms, after whole body U.H.F.



B. 18 months later, 22 May 1975, well without any evidence of his cancer. His X-ray has improved, although there is a defecit in the pelvis, above the head of the right femur. He had returned to farming a 5,000 acre ranch and completely asymptomatic.



C. X-ray on 2 February 1976. Without further treatment his hip joint had healed and regained its strength and stability. Immediately above & to the right of the last defect to heal, he has a stone in his right ureter! The X-ray was taken to diagnose his stone. This patient survived 13 years after his UHF & X-rays without recurrence. He died as a result of an accident on his tractor whilst hedging & ditching! A typical result for all patients who were treated with similar diagnosis and summarised on pages 84 to 88.



Bone marrow aspiration from patient CL on Monday 5 September 1983 after his three final treatments for AML on 29 August, 31 August and 2 September 1983. All the leukaemic cells are dead or damaged, the cells of the inflammatory reaction are undamaged.

3. GENERALISED N.H.L. UHF + CYTOTOXICS ± XRT

INITIALS	YEAR OF BIRTH 19-	SEX	PREVIOUS THERAPY (XRT) 19-	PREVIOUS THERAPY (CYTOTOXICS) 19-	FIRST UHF THERAPY WITH CYTOTOXICS + XRT 19-	CLINICAL STAGE AT FIRST UHF & XRT E = Extranodal site (s) S = Spleen involved B = Fever, weight loss etc.	WHOLE BRAIN XRT	SURVIVAL SINCE FIRST UHF THERAPY YRS	TRANSFUSIONS NEEDED	CAUSE OF DEATH or ALIVE WITH DISEASE
D.I.	10	F	67	66-75	76	III E		2	5	N-HL
K.S.	34	M	-	68-74	75	III E	YES	7	3	N-HL
D.S.	39	M	-	71-73	74	II E + S		8	9	N-HL
J.D.	23	M	74	72-74	74	IV	YES	2	1	N-HL
C.S.	01	M	-	72-73	74	III		2	2	N-HL
E.D.	07	M	73	73-74	74	II		4	0	N-HL
R.G.	13	M	-	72-78	82	II E	YES	½	4	N-HL
G.F.	28	M	-	74-78	79	III S + E	YES	½	2	N-HL
B.A.	02	M	-	75-76	77	IV		1	0	N-HL
F.E.	25	M	-	74-80	81	I E		6	3	N-HL
I.M.	22	M	68	76-79	79	III		2	1	N-HL
F.D.	21	M	78	78	79	II E		3	2	N-HL
V.M.	19	F	-	77-79	79	III S		2	0	N-HL
K.H.	40	M	-	76-80	80	II B		¼	1	N-HL
A.S.	14	F	-	77-80	80	III S		2	0	N-HL
C.S.	01	M	73	73	74	II S B	YES	¼	2	N-HL
J.V.	28	M	80	80	83	II		3	0	N-HL
P.B.	32	F	-	83	84	II		5	0	ALIVE

TABLE 3. GENERALISED N-HL. Cytotoxic therapy group. All secondary referrals when further conventional therapy was considered valueless.
Diagnostic criteria & staging as in Table 2.
Only 1 survives with disease: 5 have had central nervous system involvement requiring brain XRT.

A summary of every patient referred with generalised malignant lymphoma who had received prior cytotoxic agents (7 also had had local X-ray Therapy) and were retreated by request with combined cytotoxics and microwaves to evaluate efficacy of such therapy.

GLUCOSE BLOCK BEFORE 434 MHz UHF

Because the energy source for exponential uncontrolled cancer cell division is fermentation, then any agent blocking anaerobic glycolysis could become an anti-cancer agent when anaerobic glycolysis resonates and flouresces under 434 Mega Hertz radio waves.

The following agents have been tried clinically and can be effective.

1. Ethyl alcohol. A blood concentration of 120 mgm / 100ml or more is needed.
2. Cystine, Cysteine and sulphur atom immobilisers :- for example S-methyl L-cysteine sulphoxide.
3. Compounds which immobilise the glutathione cycle GSSG - 2GSH - GSSG.

   Examples are Sulphones, symmetrical form either side of $-\overset{O}{\overset{\|}{S}}-$ which keeps the sulphur in an oxidised form. The discoveries of Professor Haddow, when Director of the Chester Beatty Research Institute in London made 2 cytotoxic chemotherapy agents with similar chemical form, because he hoped they would join the DNA and RNA chains and therefore damage the genes and kill the cell when the genes divided. Instead they join GSSG to GSSG!

   Arsenious Oxide, a cytotoxic agent 80-90 years ago gave dramatic remissions in acute leukaemias: Fowler's Solution, taken orally, inactivates Step 3 (P.21) by converting 1,3-di-phosphoglyceric acid to 1-arseno-3-phosphoglyceric which, no longer able to regenerate GSSG and so ER_{ex} is non-functionable.

4. Insulin. It has a long molecule linked with multiple di-sulphide -SS- links. Cancer destroys insulin. Large intra-venous doses (up to 2,000 i.u. or more) followed by UHF are very effective. Ocassionally one needs to restore the blood glucose levels and hospitalisation for treatment is essential. Cancer actively destroys insulin, low blood glucose is rare and the Hollywood scenario of mercy killing from insulin of a dying cancer sufferer is unreal, requiring hundreds or thousands of units in one dose! Human Insulin is manufactured from human genes introduced into cancer cells or any single celled life (bacteria etc.) because ERex is the "engine" to make it. Therefore insulin's manufacture is an electrical system and rising radio-wave pollution explains the rising incidence of Diabetes.
5. Coley"s "Vaccines" A surgeon in New York early last century used the toxic products of streptococci and other bacteria, & cure cancer by injection into the cancer plus creating a fever. The Toxins all contained -S-S- groups similar to but not like insulin. His results remain amongst the World's Best and his story by his descendant Dr.Helen Coley Nauts about her Cancer Research in New York under her direction should be read.

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Byrne, J., 1892, An inquiry into the relative merits of vaginal hysterectomy and high amputation or partial extirpation by galvanocautery in cancer of the cervix uteri. Brooklyn Medical Journal, 6, 729-766.

TABLE 1

12 PATIENTS WITH PROVEN RECURRENT CANCERS TREATED WITH CYSTINE AND OXIDISED GLUTATHIONE AND UHF IN 1985 & 1986 AND REVIEWED IN JULY 1991

Abbreviations: DoB = date of birth, S = surgery, X = X-ray therapy, R = recurrence, biopsy proven before treatment, T = treatment as above using cystine, GSSG and UHF radiation.

1. Female, DoB 31/5/46. Glioblastoma grade 3, S & X Dec '83 to Feb '84. R & T Aug '84 & Jan '85. Yearly computerised scanning, all normal with the latest in Jun '90.

2. Male, DoB 23/1/39. Non Hodgkin's Lymphoma involving bilateral neck and axillary nodes and mediastinal disease. X in Jul '83 and Mar '84, R in Nov '84, T in Dec '84 & Jan '85. Complete resolution, clear Jan '91.

3. Female, DoB 26/11/59. Fibrosarcoma of the pelvic wall. S in Oct '79 & Oct '81. X in Nov '81. R & T in Feb '85. Now has no evidence of cancer and she is normal on x-ray and clinical examinations, Mar '91.

4. Male, DoB 1/4/55. Inoperable anaplastic carcinoma in groin and retroperitoneal nodes, biopsy only. T in Mar & Apr '80. R & T in April 1986. Free of cancer since, now normal on x-ray and clinical examinations, May '91.

5. Female, DoB 6/1/24. Nasopharyngeal carcinoma with bilateral neck metastases in lymph nodes. X in Aug '75, Sep '79, Feb '84 & Apr '84. R & T in Jul '84, now free of cancer, last examined in Mar '90.

6. Male, DoB 13/10/38. Nasopharyngeal carcinoma with unilateral neck lymph node metastases. X in Aug '80 & May '84. R & T in Mar '86. Free of cancer, last examined with negative biopsy in Jun '91.

7. Female, DoB 3/5/30. Bilateral ovarian cystadenocarcinoma. S & X Apr '86. Developed bone and lung metastases. R & T in Jul '86. Complete remission and improvement in her bone scan in Jul '90.

8. Male, DoB 5/5/34. Astrocytoma grade 1. Biopsy and T Sep '83. Well 6 1/2 years, recurrence, refused biopsy, re-treated Apr '91 and he has had a further regression with cessation of Jacksonian seizures.

9. Female, DoB 14/1/21. Refused S or biopsy for a progressing retinal malignant melanoma. X in Jan '87 proved ineffective but T in Mar '87 has inactivated the melanoma which is static. No clinical changes observed to have taken place since then Jun '91.

10. Female, DoB 1/7/29. S Nov '86, uterine leiomyosarcoma. R & T Dec '86 and Jan '87. X-ray scan and clinical examination normal, Jun '91.

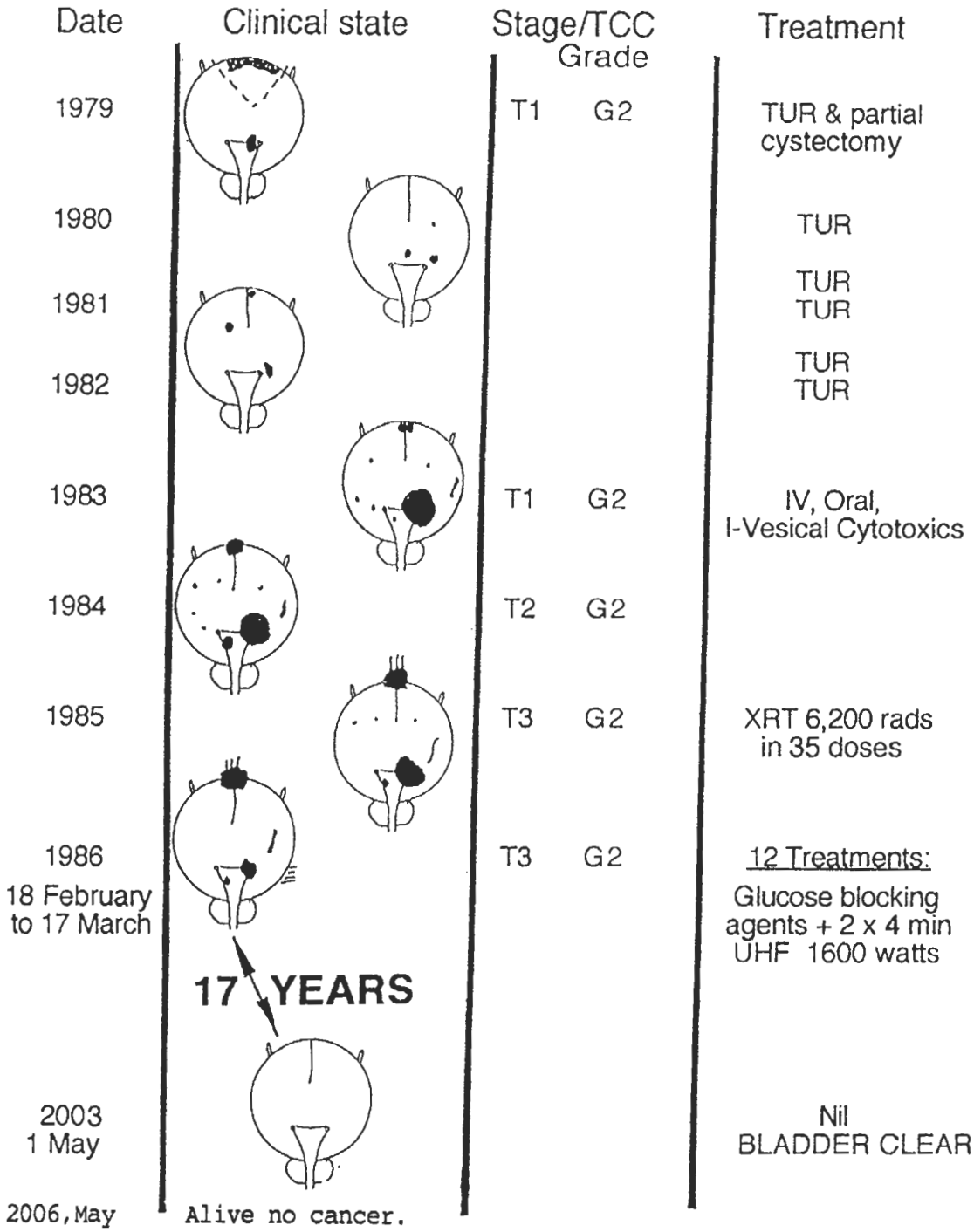
11. Female, DoB 25/9/21. Nasopharyngeal carcinoma, bilateral neck node metastases. X Jan '79 & Mar '80. R & T Oct '80. Disease free Oct '90.

12. Male, DoB 20/3/31. Bladder cancer uncontrolled from '79 to '86. Given treatment 1986, cured, alive and well in '02.

Patient NO 12, Table !.

BLADDER CANCER - J.S.

MALE DOB - 20/3/1931



This patient had a partial cystectomy in 1979 for a grade 2 (moderately rapidly growing) cancer of the bladder. A recurrence was present in 1980, 1981 and 1982 and required five transurethral resections during that interval. In 1983 intravenous oral and intravesical (directly into the bladder) cytotoxics were given without any improvement and in 1984 6,200 rads of x-ray therapy in 35 doses was delivered. In 1985 there is no appreciable improvement and treatment was given as indicated on the chart between 18 February and 17 March 1986. The bladder remains clear on 1 May 2003. This is 17 years after treatment when every other conventional method had failed and he had been given a prognosis in 1986 of surviving approximately one year.

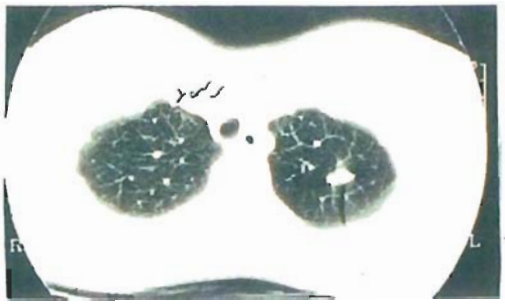
GLUCOSE BLOCKING AGENTS BEFORE U.H.F.

Osteogenic Sarcoma

Miss EJ, Date of Birth 17/11/1978:

Diagnosis in July 1997. Multiple drug chemotherapy until September 1997 - local excision of primary. April 1998 excision of a metastasis in the lung revealed multiple active lesions. CT scans from 28 July 1998 show progress and calcification effects of anaerobic glycolytic blocking agents given with 434 MHz radiowaves in August and October 1998.

11 May 1998

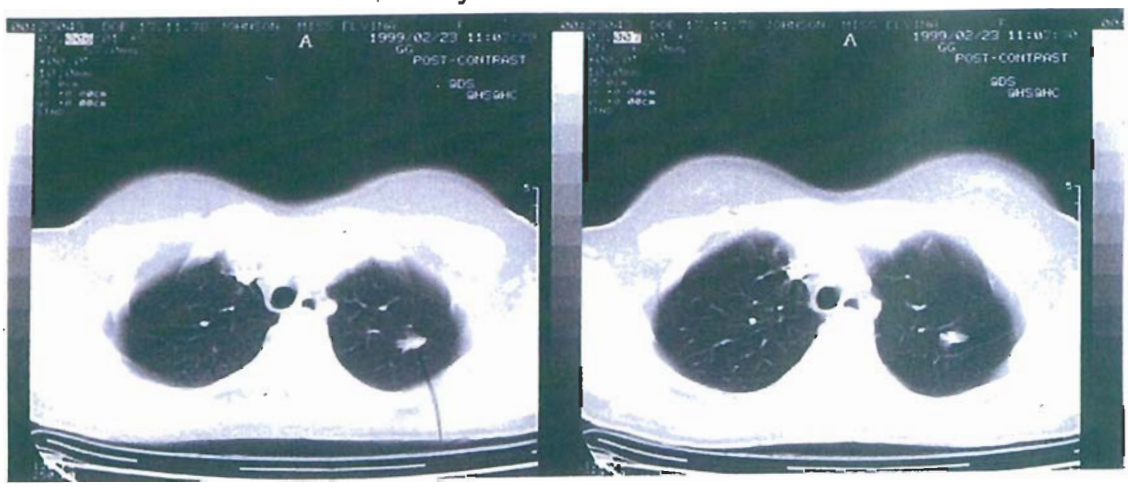


30 November 1998

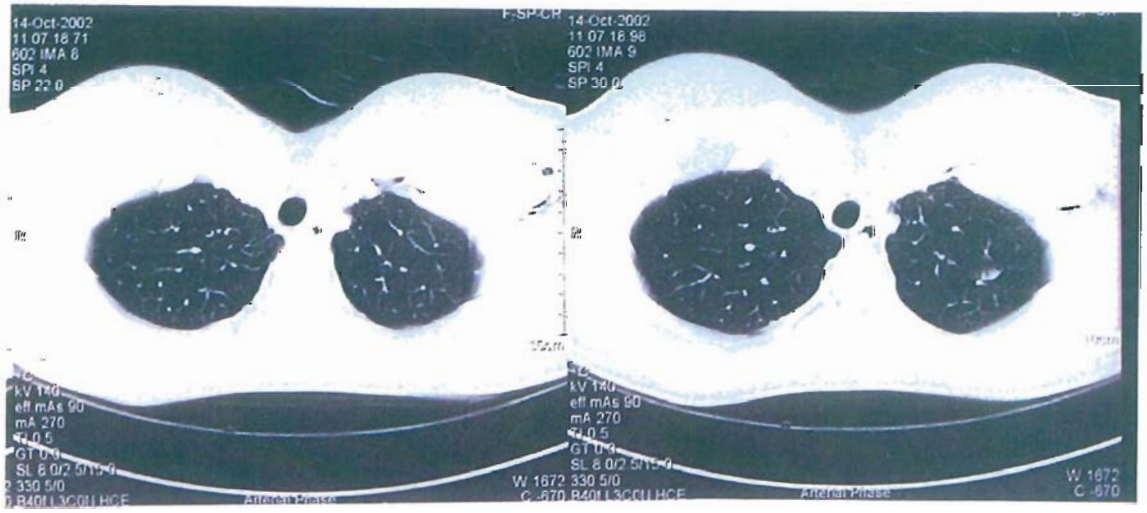


Treatment
1998
10-28 August
& 5-23 October

23 February 1999



14 October 2002



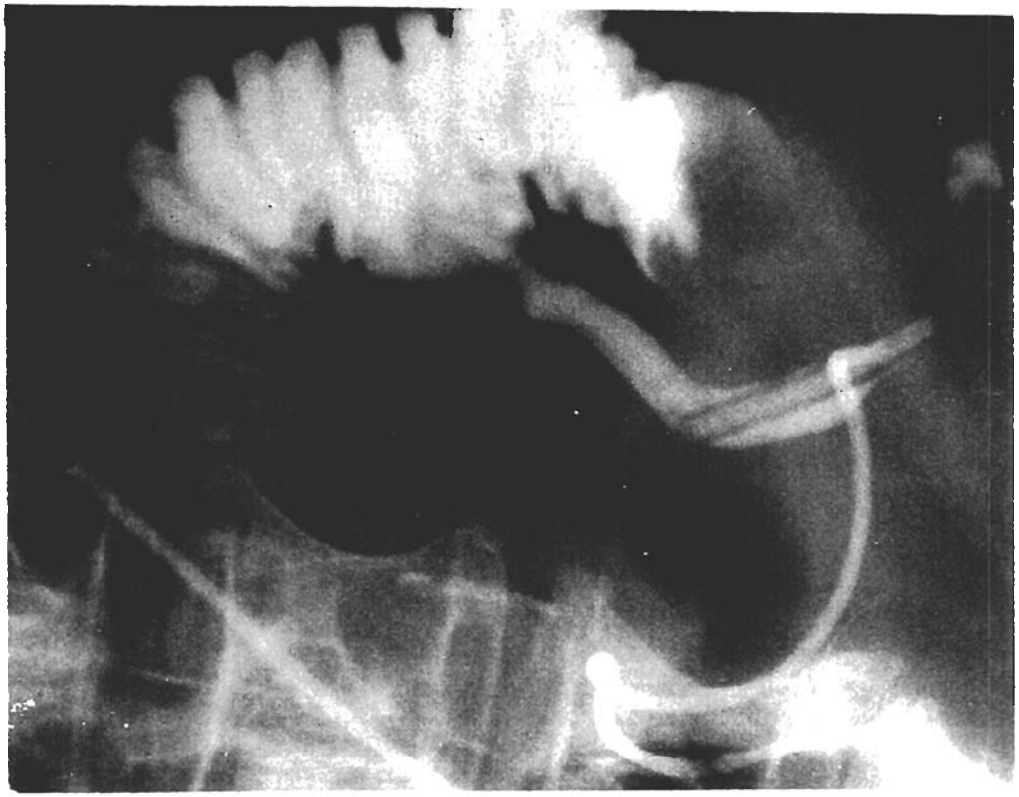
At least 100 similar lesions were visible in CT of August 1998. All have calcified and remain unchanged in April 2006

(B) GLUCOSE BLOCKING AGENTS BEFORE U.H.F.

Pancreatic cancer blocking the common bile duct: This patient was given a course of 12 treatments using glucose blocking agents + 434 MHz. No X-ray Therapy was used.



5 September 1974
A decompression of his obstruction by external drain: injected dye ONLY perfuses the liver because the cancer obstructs the common bile duct from liver and pancreas to the duodenum.



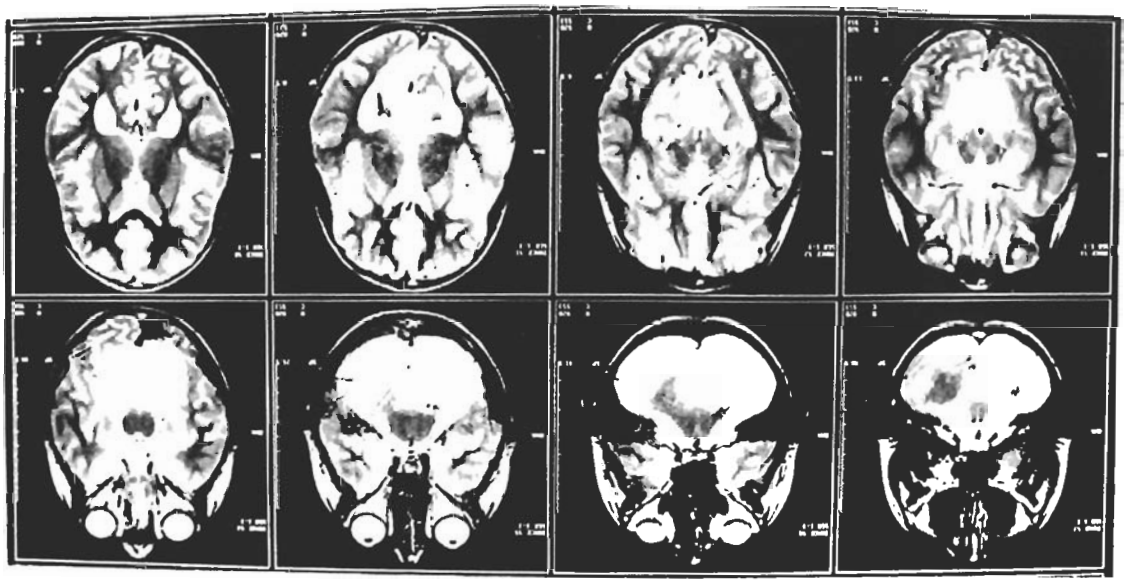
17 October 1974
After treatment injected dye enters the duodenum normally! The T-tube drain was removed.

No sign of cancer in 2004.

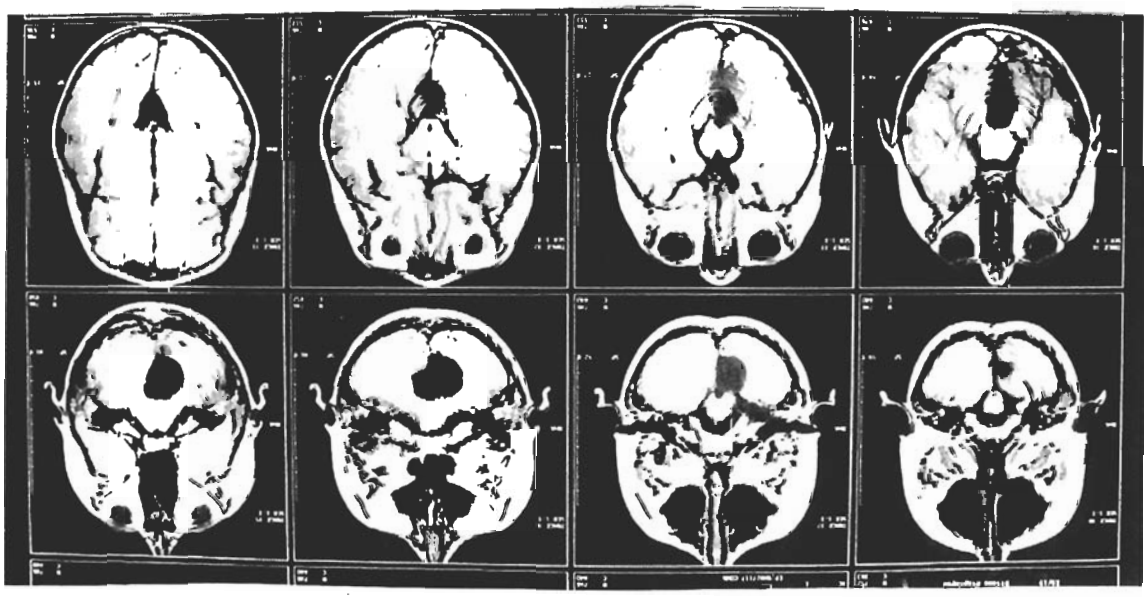
RECURRENT MEDULLOBLASTOMA

Miss SR - DOB - 18/01/1991. Age 9 when treated.

Proven medulloblastoma of the posterior cranial fossa partly excised by surgery followed by a radical course of radiotherapy to the skull. Preoperative CT scan taken 28 July 2000.

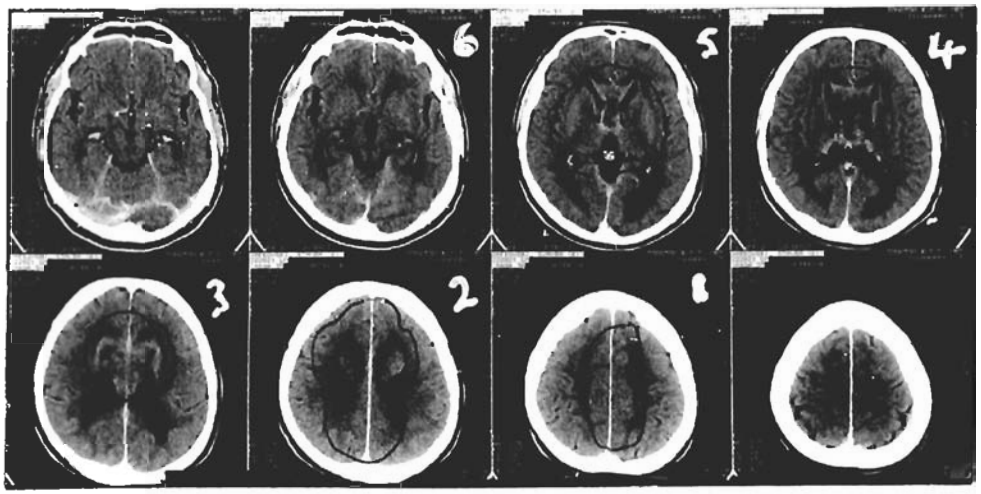


Large residual tumour actively regrowing causing pain, nausea, weakness of spinal muscles, difficulty in standing and balancing. MRI taken 21 May 2001 shows a large soft tissue mass still present at the site of the original tumour. A 15 day course of anaerobic glycolytic blocking agents and UHF given between 13 and 31 August 2001 which caused complete resolution of all her major symptoms. Second course of treatment - 2 January to 25 January 2002.

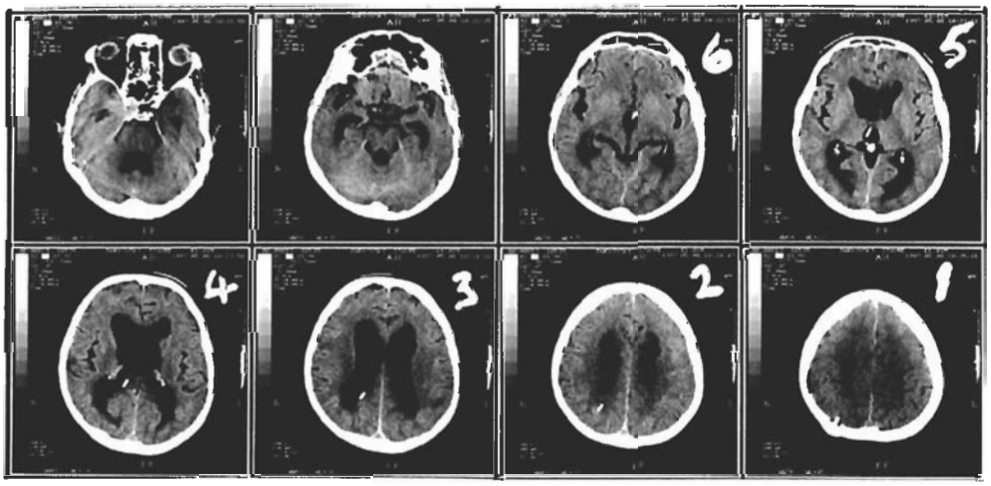


MRI dated 2 September 2002 shows no abnormal signals in the posterior fossa to suggest recurrence. The site of the previous lesion is now a cavity filled with cerebrospinal fluid. No evidence of active malignancy. Alive & well in May 2006.

Grade 3-4 Glioblastoma Multiforme



Cerebral computerised tomographic scan of a 41 year old patient dated 8 April 1997. A short history of one month of drowsiness and discomfort in the head followed by memory loss, confusion, unsteady gait and generalised weakness. The dense black areas in the scan represent the ventricles or the cavities in the brain containing the cerebrospinal fluid. The tumour can be seen occupying the ventricles.

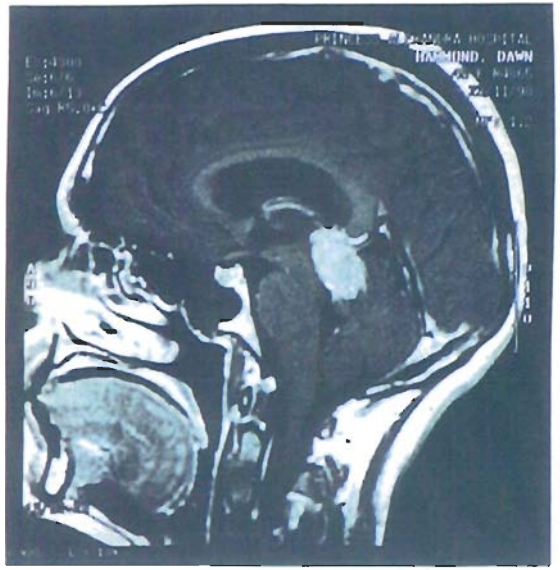


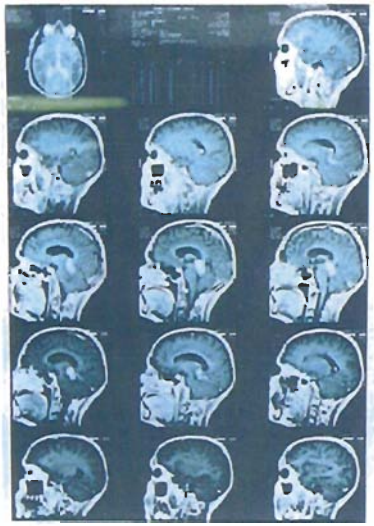
The ventricles, or cavities in the brain, are seen well in pictures 2, 3, 4 and 5. Compared with the illustration above this computerised scan was performed on 8 May 1997. Treatment consisted of glucose blocking agents followed by radiowave therapy to the skull on the 28th, 29th and 30th of April and the 1st, 2nd, 5th, 6th and 7th of May 1997 (8 treatments only). The radiologist concluded that there has been a dramatic response to therapy and the majority of the malignancy has disappeared. The biopsy in April showed this to be a grade 3-4 glioblastoma multiforme. This is an extremely malignant brain tumour. The records of the Western Australian Cancer Registry show that no patient with malignant glial brain cancers have survived, apparently cured, after any form of surgery, radiotherapy and/or cytotoxic treatment. Several similar complete disappearances of inoperable and otherwise untreatable brain cancers have similar responses and from this method one 7, one 5 and one 4 year survival cancer free have been achieved, when reviewed in 2004.

MALIGNANT PINEOBLASTOMA

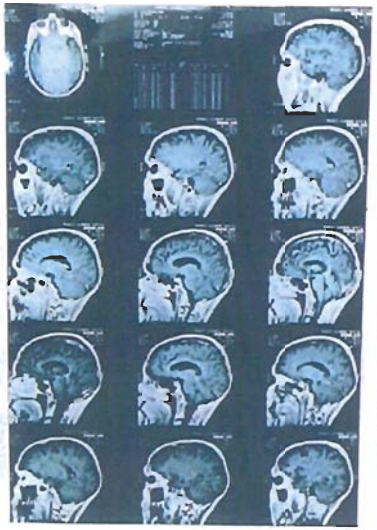
Mrs DH, Date of Birth 12/9/1953:

MRI 23 NOVEMBER 1998





MRI 1 AUGUST 2000





Diagnosis - needle biopsy, 5,400 rads over 30 treatments, failure to control intracranial pressure and referred for anaerobic glycolytic blocking agents and radiowaves.

After a 15 day course of therapy 12 July 1999-30 July 1999: Complete relief of all symptoms.

Alive and well in 2004, lost to follow-up.

100

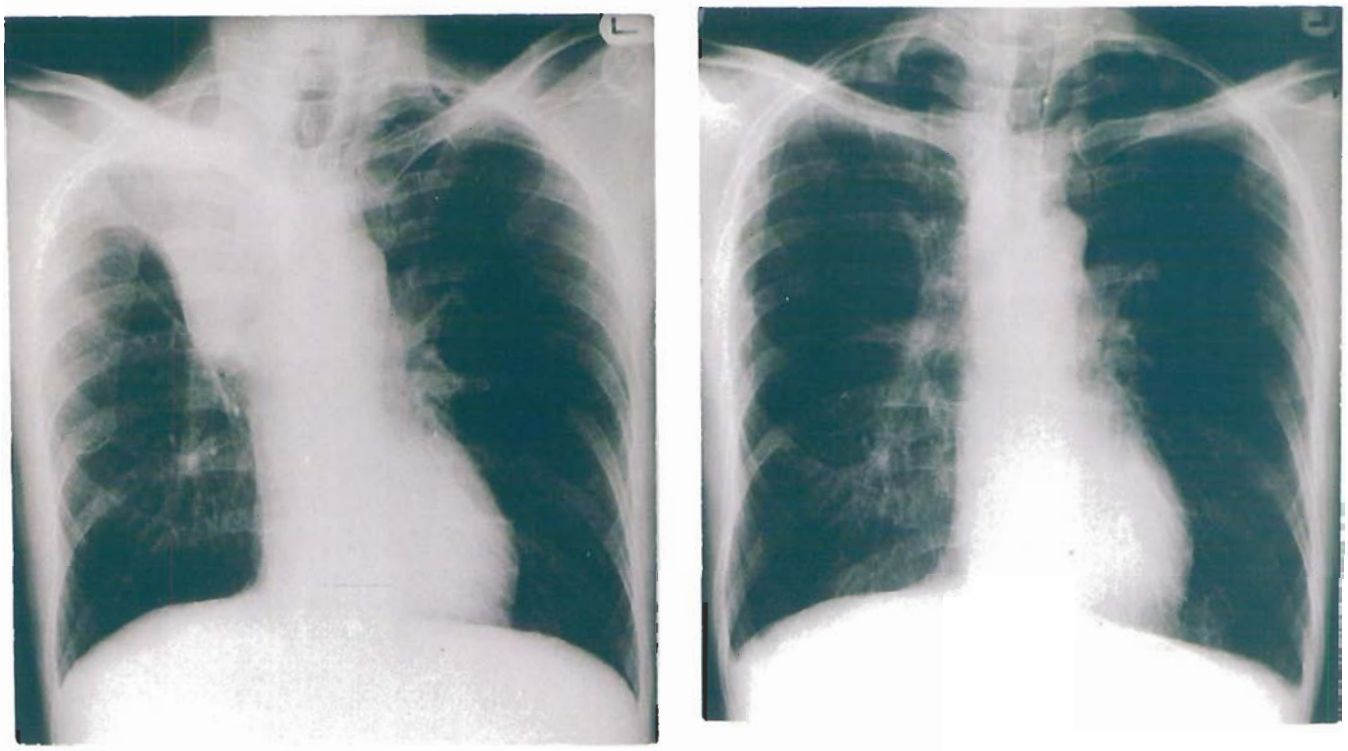


A. Chest x-ray, female, primary adenocarcinoma in the right upper lung region with secondaries in the central mediastinal lymph nodes. Both sites proven by needle biopsy. X–ray 29 March 1993.

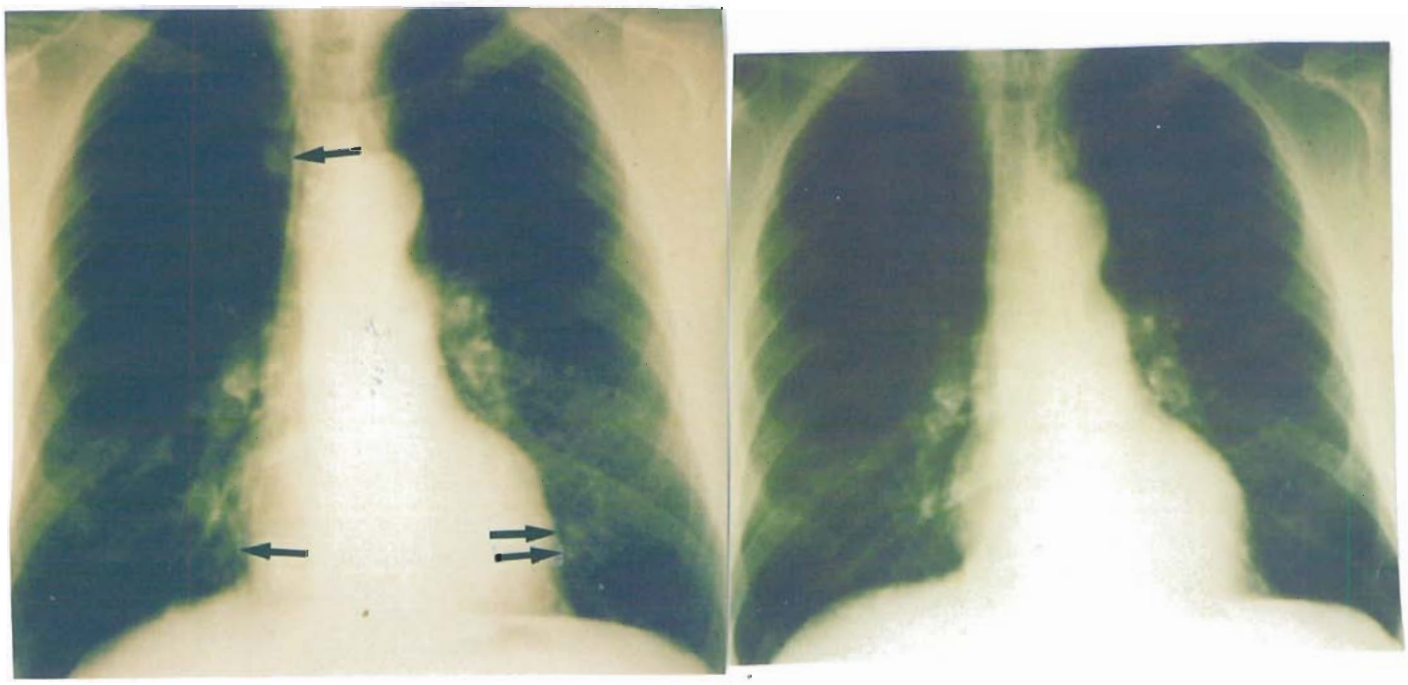


B. X-ray of the patient in 42 on 1 July after 11 treatments of UHF and glucose blocking agents. No recurrence three years later.

SQUAMOUS CELL CARCINOMA OF THE LUNG



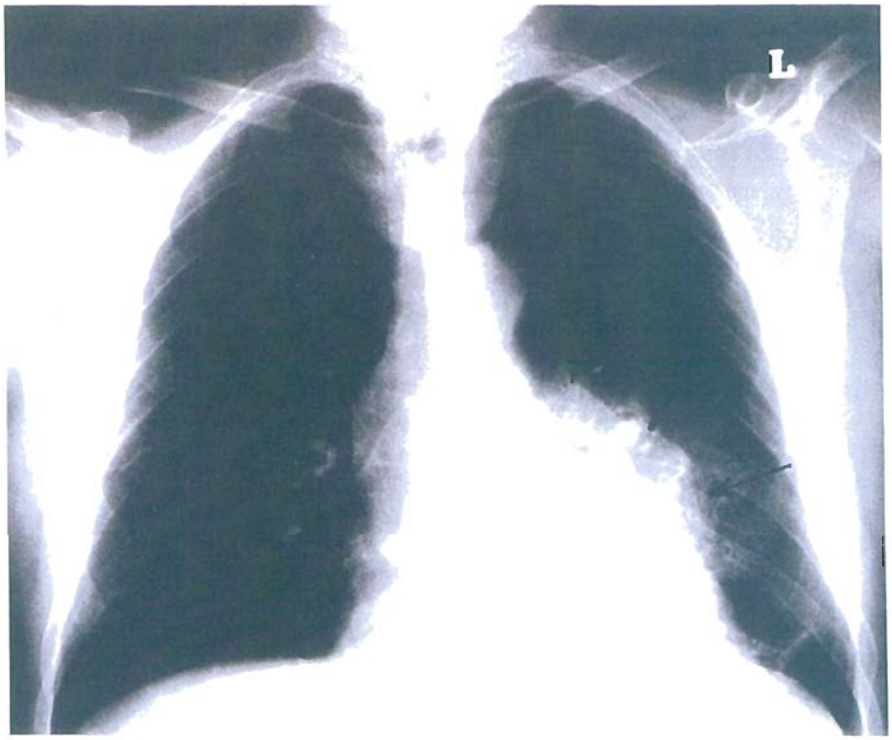
A & B. Collapse of the right upper lung (16 July 1982) due to blockage of the right main bronchus from a squamous cell carcinoma. Left photograph before treatment, right photograph two months later (24 September 1982). This is a moderately common type of lung cancer and does not respond to conventional x-ray therapy at safe dosage levels. No recurrence when last seen five years later.



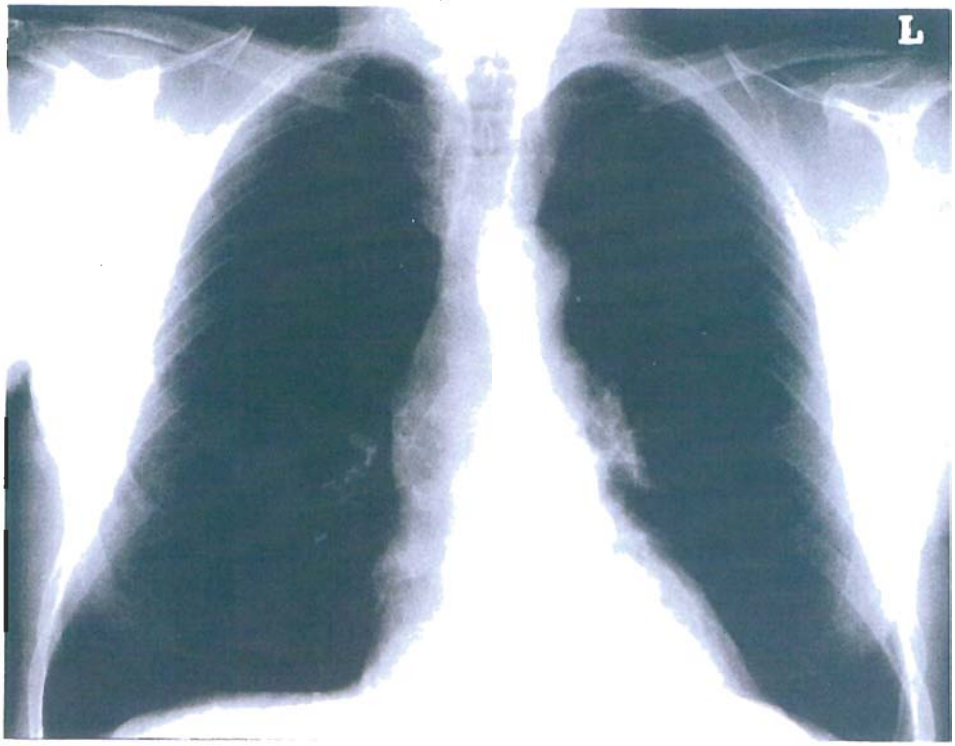
A. A patient with secondary cancer from an adenocystic carcinoma arising from a submandibular salivary gland. The primary had been treated with UHF radiowaves and x-ray therapy six months before. Because of the danger of acute radiation side effects on the lung these cannot be treated with an x-ray therapy method and were treated with glucose blocking agents and UHF radiowaves.

B: Two months later the four secondary deposits had disappeared. The lung fields remained clear for the next two years which was the last information about this patient.

SCC LUNG

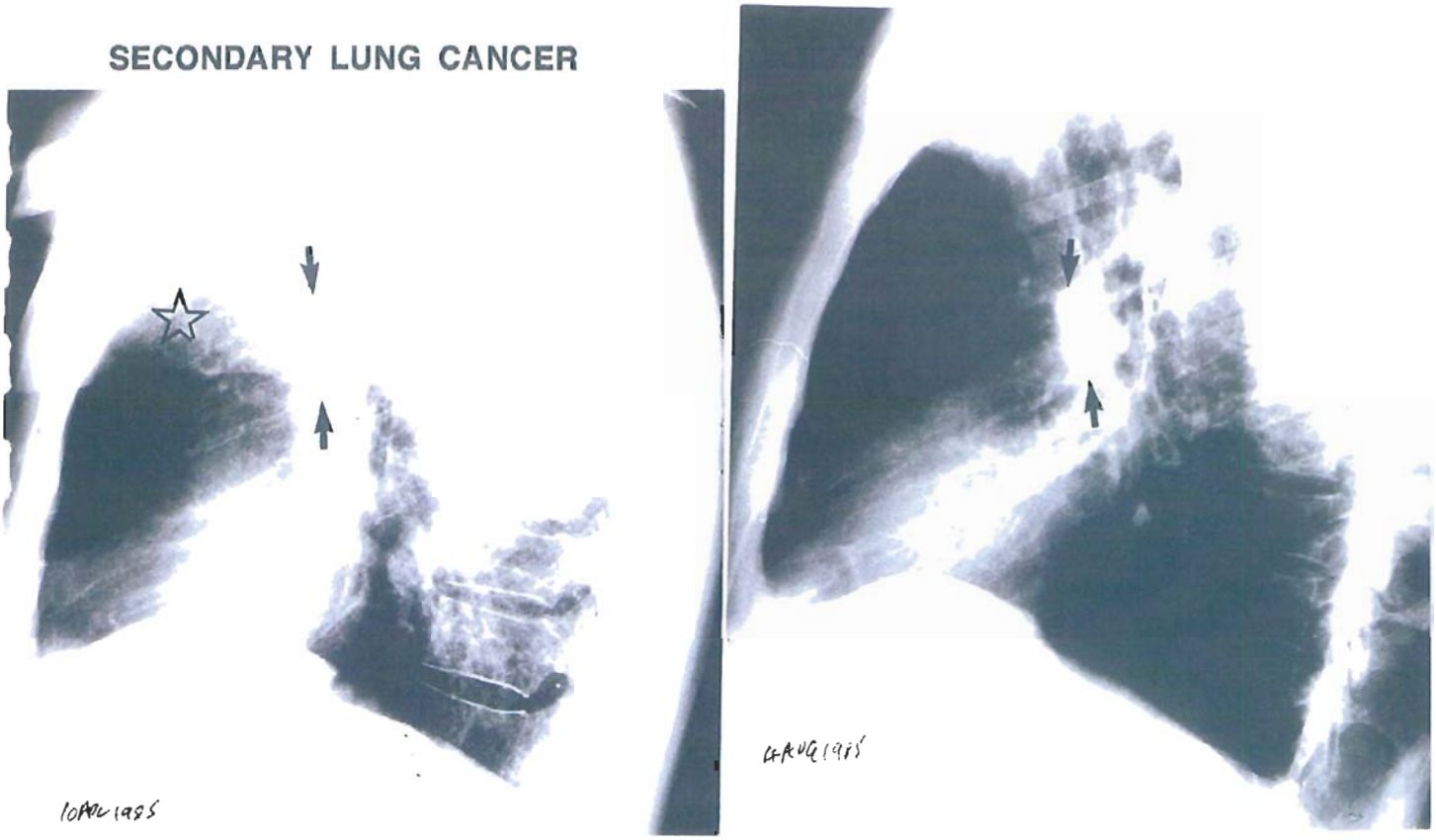


A. A chest x-ray of a 66 year old female on 18 July 1990. She has an inoperable squamous cell cancer of the left lung (arrowed). Treated with a 15 day (three weeks) course of anaerobic glycolytic blocking agents.



B. An x-ray of the patient as shown in illustration A (above) on 14 January 1991. All her symptoms have resolved and her x-ray shows excellent regression of her cancer. Her yearly x-rays showed no changes over the next four years and was last seen in June 1995.

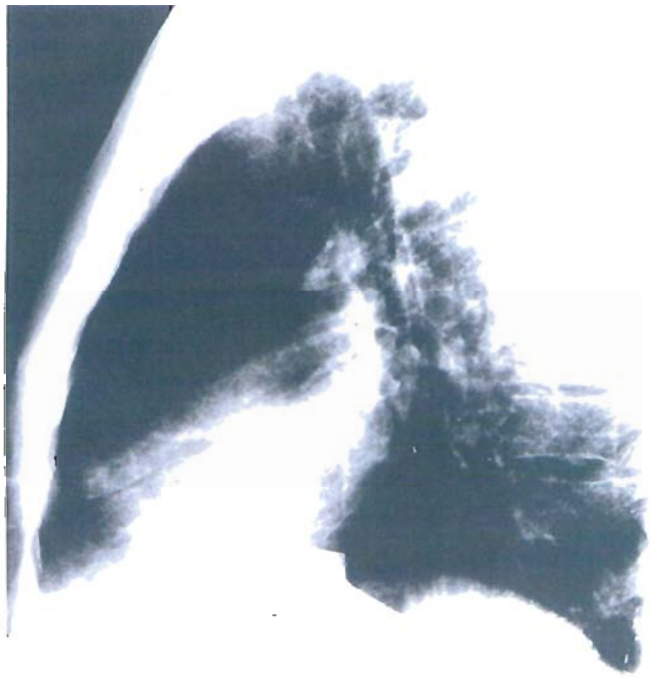
SECONDARY LUNG CANCER



A B

A. A patient with partial collapse of the lung (starred) from a secondary (arrowed) pressing on the left main bronchus. This patient was treated with anaerobic glycolytic blocking agents. X-ray taken 10 April 1985.

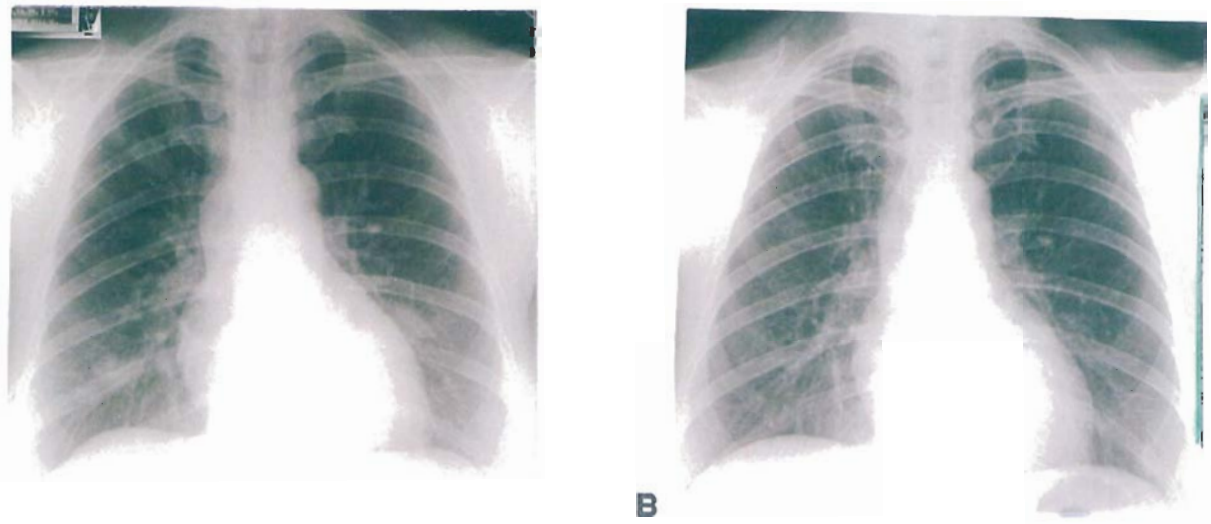
B. The results on 15 August 1985 after six individual treatments in May.



C

C: The patient was now completely asymptomatic on 12 December 1985 and the collapsed lung (the open starred area in A) has completely resolved in this picture. He was treated from overseas and has been lost sight of. His fate is unknown.

METASTATIC COLON CANCER

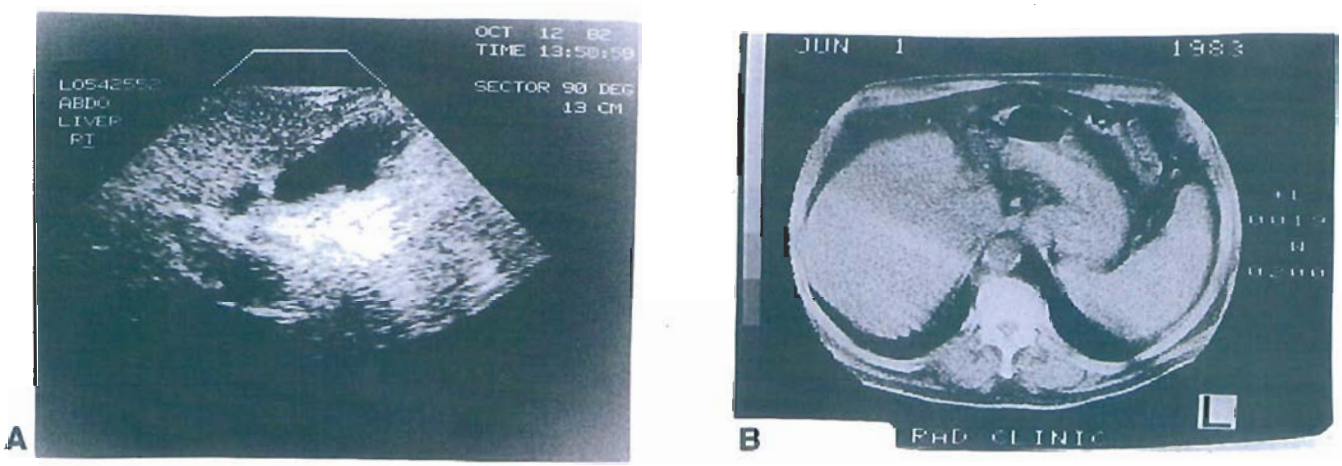


A B

A. A patient with metastatic cancer from the colon. She also has a few small liver secondaries. Photograph taken 29 July 1993.

B. Two months after a 15 day course of glycolytic blocking agents. The secondary in the lung has disappeared. Some of the smaller liver secondaries disappeared but the control of the bigger ones was not obtained and she died approximately a year later. Photograph taken 17 December 1993.

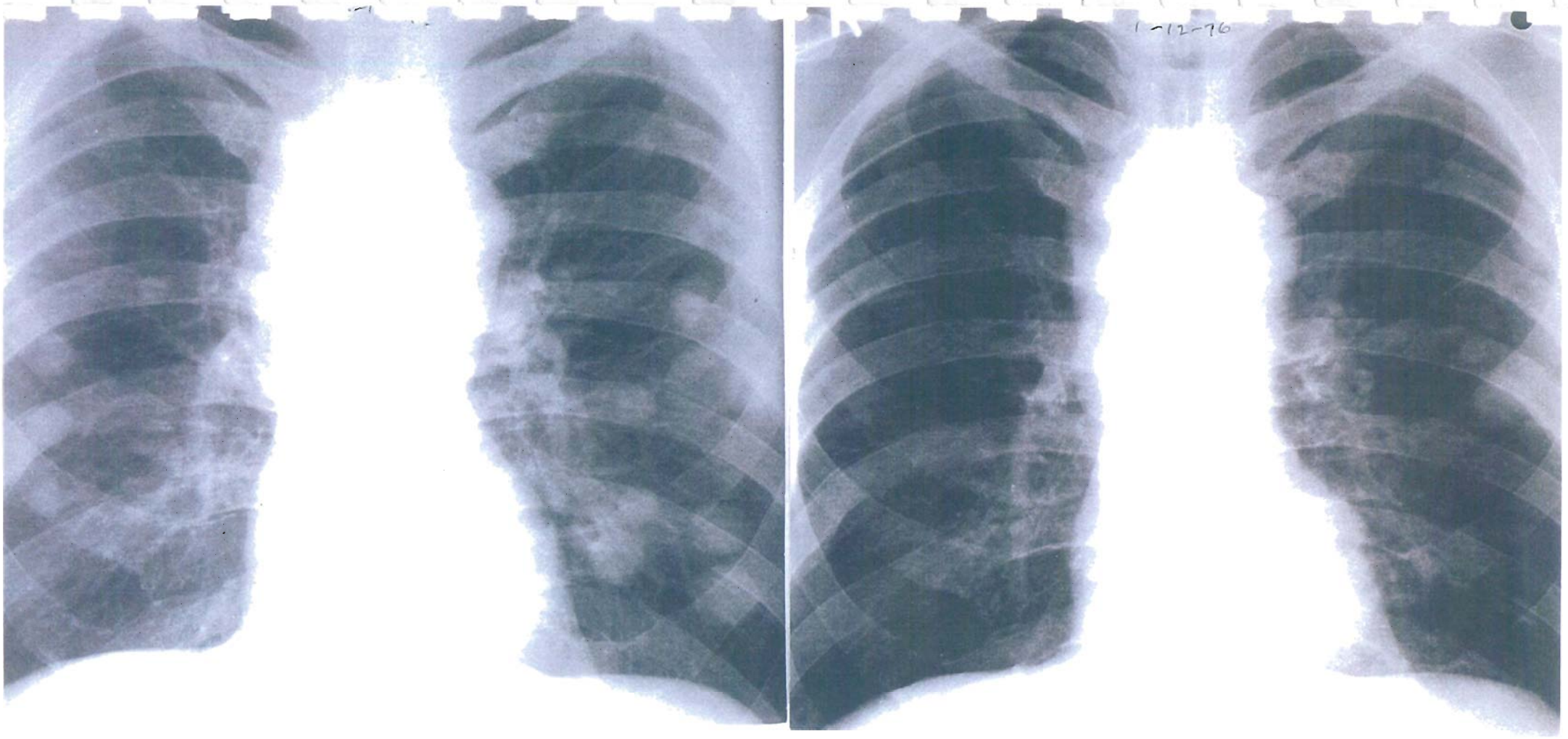
HEPATOCELLULAR CARCINOMA



A B

A. The ultrasound of a patient suffering from a primary hepatocellular carcinoma. He had been suffering from Hepatitis B virus for many years following a blood transfusion years ago and this is a rare sequel of viral infections of the liver. Unfortunately the CT scan of 12 October 1982 has been destroyed. He was treated by anaerobic glycolytic blocking agents and radiowaves.

B. 1 June 1983 - A CT scan shows a normal liver although it is shrunken and scarred and is surrounded by fluid, or ascites. This patient's liver function tests which were grossly abnormal in October 1982 returned nearly to normal and he was well for two and a half years following this x-ray. His liver gradually failed and he died of liver failure early in 1986.



A. 4 November 1976: Before treatment for multiple secondary cancer from a teratoma of testis.

A 32 year old farmer presenting with multiple secondary cancer from a primary teratoma of the testis which had been removed by surgery followed by radiotherapy to his para-aortic lymph nodes and then given three courses of cytotoxic chemotherapy. The metastases were continuing to grow. Treated with three doses on alternate days by anaerobic glycolytic blocking agents and UHF therapy.

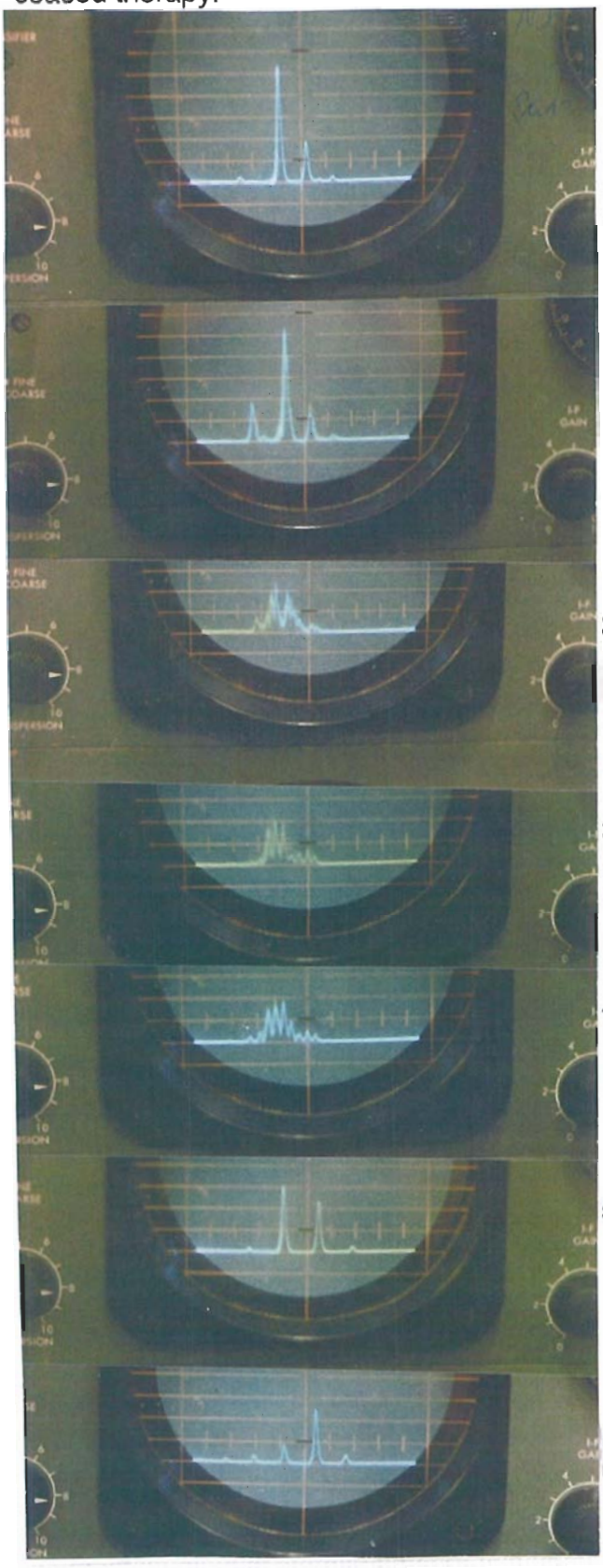
B. 1 December 1976: After three treatments on 16, 18 and 20 November 1976.

Shows the remarkable clearance of a large proportion of his lung secondaries a few weeks later. This patient was a farmer in the midst of repeating his harvest and as he felt so much better he declined further treatment. He was advised to have three more treatments. He travelled abroad some three months later and was treated with an intense cytotoxic chemotherapy program in the Unites States of America where he died.

Dr. SA 9 August 1978

Reflected spectra from various portions of his body on the first day of treatment in 1978

A testis removed for embryonal cancer February 1978. Post surgical x-ray therapy to para-aortic lymph nodes: no recurrence in scrotum and abdomen. Six months later developed lung metastases. He refused combined UHF and x-rays and refused glycolytic blockers. He accepted cyclophosphamide IV and UHF but only received five treatments and returned to the USA. He had cytotoxics and died three months later. The reflected spectra (on first day of treatment) demonstrated that his lung lesions and normal testis perturbed this analogue spectroscopic picture. He requested we shield his normal testis after seeing scan Number 4! As Dr Nelson and I could NOT guarantee his hormonal/testicular function despite shielding he ceased therapy.



1. Over head with arms raised

   normal

2. Over head and neck

   normal

3A. Over chest - sternal angle

   cancer

3B. Over chest - xiphi sternal area

   cancer

4. Over the remaining testis

   "Cancer" reflected signals from normal adult testes.

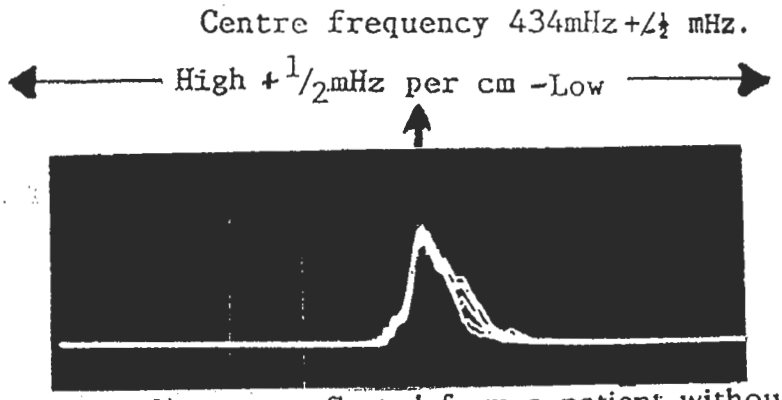
5. Over upper abdomen

   normal

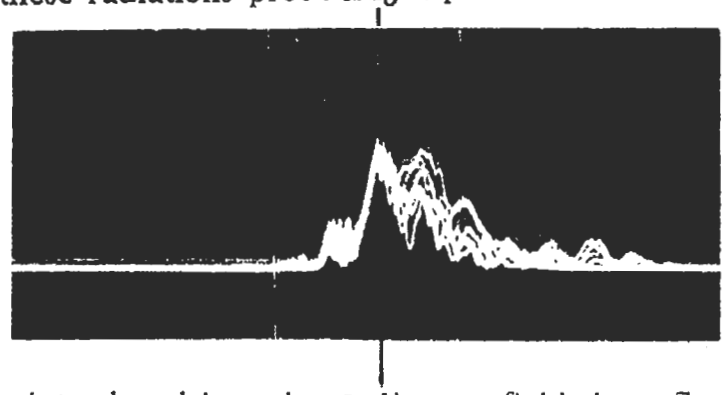
6. Over lower thighs

   normal

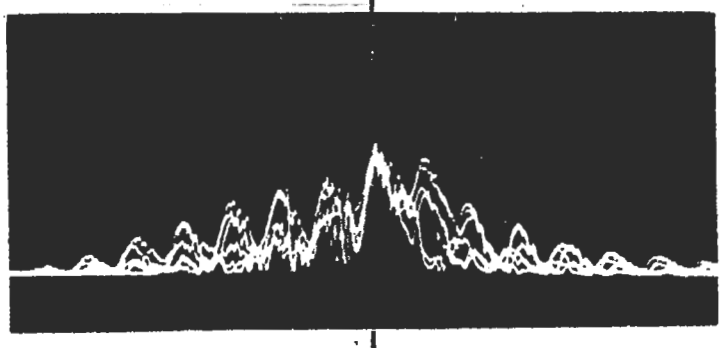
THE SPECTRUM OF REFLECTIONS FROM NORMAL AND CANCER TISSUES. THE CANCER REFLECTIONS ARE IDENTICAL TO THOSE FROM HIV/AIDS INFLUENZA, VIRAL (active infections) AND SO-CALLED AUTO-IMMUNE DISEASES. This evidence is reasonable proof that these Auto-Immune diseases are all due to "viruses" which are similar to but less invasive than AIDS, against which humans have little or defective anti-body defensive reactions.



A spectrum of the **Radiowaves** reflected from a patient without cancer. The higher frequencies are to the left, the lower frequencies to the right. The centre frequency is 434 MHz and each vertical marking represents 0.5 MHz deviation. The normal body reflects these radiations producing a picture rather similar to a witches hat.



When cancer is introduced into the Radiowave field the reflections alter. The higher frequencies (the left hand end) which were not present in the normal become obvious in a cancer. The cancer is able to add energy to the Radiowaves and re-radiate this at a higher frequency. This is the characteristics of fluorescence. This was the effect I discovered in 1974. There is also evidence that cancer resonates, producing the band of other discordant reflected frequencies below 434 MHz.



One of the most extreme changes in a spectrum reflected from a cancer that has been recorded. A mesothelioma on its first presentation. 1/8 second exposure: 50 traces per second. 1/2 MHz per vertical division. The central frequency is 433.89 MHz: higher frequencies to the left, lower to the right. These spectra and others in this book are all produced using dipole antennae for treatment.



1.

A. Lesions of Kaposi's sarcoma on an HIV positive patient with cerebral symptoms from involvement of his brain with the virus. Photograph taken 3 February 1977.



1.

B. Improvement in the lesions of Kaposi's sarcoma immediately at the end of the course of therapy. Photograph taken 5 April 1977.



2.

A. A Kaposi's sarcoma of the hand. Photograph taken 8 September 1982.



B. A satisfactory response. Permanent eradicaton of the sarcoma. Photograph taken 16 November 1982.



3.

A. A Kaposi's sarcoma deposit on the right lower eyelid. By shielding the eye with an internal gold eye shield it was possible to treat using combined radiowaves and x-ray therapy. Photograph taken 8 September 1982.



B. The response to 15 daily dosages (three weeks) of radiowaves followed by 180 rads x-ray therapy on each occasion. Photograph taken 16 November 1982.

H.I.V. & CANCER.

KAPOSI'S SARCOMA



A. Kaposi's sarcoma affecting the back of the hand and middle finger in a patient's hand treated with anaerobic glycolytic blocking agents followed by radiowave therapy. Three treatments per week for three weeks was delivered. Photograph taken 3 August 1978.



B. The end result of treatment. The Kaposi's sarcoma has been reduced to a staining in the skin layers. The right hand was not treated and is included for comparison. Photograph taken 26 October 1978.

CURING H.I.V./AIDS.

Kaposi's Sarcoma is due to this infection and is difficult to cure, being resistant to plain X-ray therapy. UHF before the X-rays usually cures the local cancer. Two patients requested whole body treatment with Glucose Blocking agents before UHF. Both appear cured, free of the HIV virus in 2006.See next 3 pages. No further requests in similar early disease were made.

CURING CANCER ALSO CURES AIDS, HIV AND OTHER DISEASES.
2 EXAMPLES, KILLING THE H.I. VIRUS.

Page 112 is the chart of one patient's CD4 and CD8 immune cell counts which have been stable at 2000 CD8 and 1000 CD4 in early 2000.

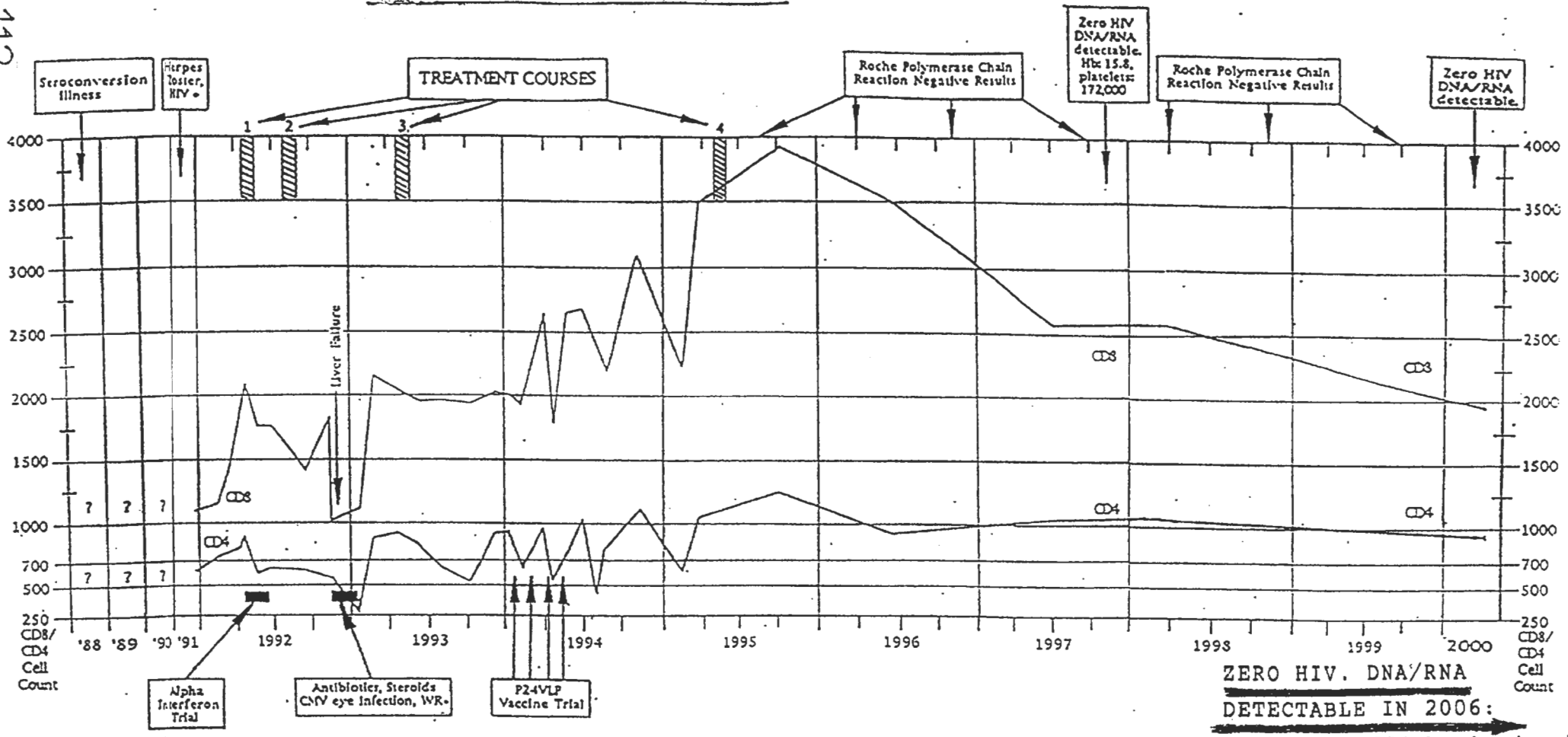
There are several points of interest in the chart, page 112. After each application of treatment there was an immediate jump in the CD8 cell count. The Roche Polymerase Chain Reaction in August 1995 became negative. Repeated in December that year, February 1996 and September 1996 and again during 1997 and 1998 all have been negative. In March 1998 not only was the viral load considered undetectable but was absent. His antibodies are still present and he still tests as HIV positive. Recently an operation for appendicitis was necessary and his tissues together with biopsies of lymph nodes also proved negative for HIV virus. His CD8 count peaked at 3,800 in September 1995, declined to approximately 3,000 where it was constant for two years and recently has reduced to approximately 2,000, remaining at that level for the past six months. CD4 count has been fluctuant between 1,200 and 900 in the same interval. He is cured of HIV and has no evidence of secondary infection. His platelets and haemoglobin are within normal limits. Page 113 spectral reflections, his third(curative) treatment.

Page 114 demonstrates the reflected spectra from a patient who was HIV positive and also suffering from acute lymphatic leukaemia throughout the lymph nodes and bone marrow proven by biopsy in May 1993. The spectrum at the first treatment shows resonance and fluorescence which is probably due to both the cancer and the virus. This increased as in the first patient demonstrated and towards his last treatment his scan was almost within normal limits. Some three months later his spectral pattern was within normal limits as far as could be detected by this crude method. He was given a second course of treatment and has not been treated since. Immediately after treatment his CD8 count rose and a year later was 1,800 whilst his CD4 count had risen to between 400 and 500. He is clinically cured in March 2006. It appears significant that many of the opportunistic infections of HIV and AIDS sufferers disappear clinically during therapy before any improvement in their CD4 or CD8 cell numbers has occurred.

One young AIDS sufferer who had brain dysfunction was unable to travel as a result of his inability to read and locate himself anywhere without help from others. He also suffered from Kaposi's sarcoma and Page 109, 1A & 1B, indicate how these responded to the 15 day course of therapy that produced dramatic improvement in his cerebral dysfunction. Shortly afterwards he was successful in taking himself overseas to visit relatives and return to Australia without help from others. He had regained his ability to read and acknowledged that the method had certainly had a profound improvement on his cerebral involvement with HIV. As can be expected, Kaposi's sarcoma which responds to conventional x-ray therapy in moderate to high dose becomes extremely sensitive to the same x-ray therapy following a moderate dose of microwaves. The sensitising effect lasts for about 20 minutes and the time sequence is critical in achieving these results. Page 109 3A & 3B, show how a Kaposi's sarcoma in a difficult situation on the right lower eyelid can be made to disappear. Page 109 2A & 2B show a similar lesion effectively treated on the hand and Figures page 110 show how multiple lesions on the back of the hand and a fungating lesion on the left middle finger can be equally satisfactorily cleared up with combined treatment.

The hundredfold increase in x-ray sensitivity without rise in temperature due to the 434 MHz microwaves proves that HIV not only has the same power source as cancer but is also the direct target of x-rays. The power source must be ER_{ex}.

P.H. MALE - D.O.B. 1 JANUARY 1949

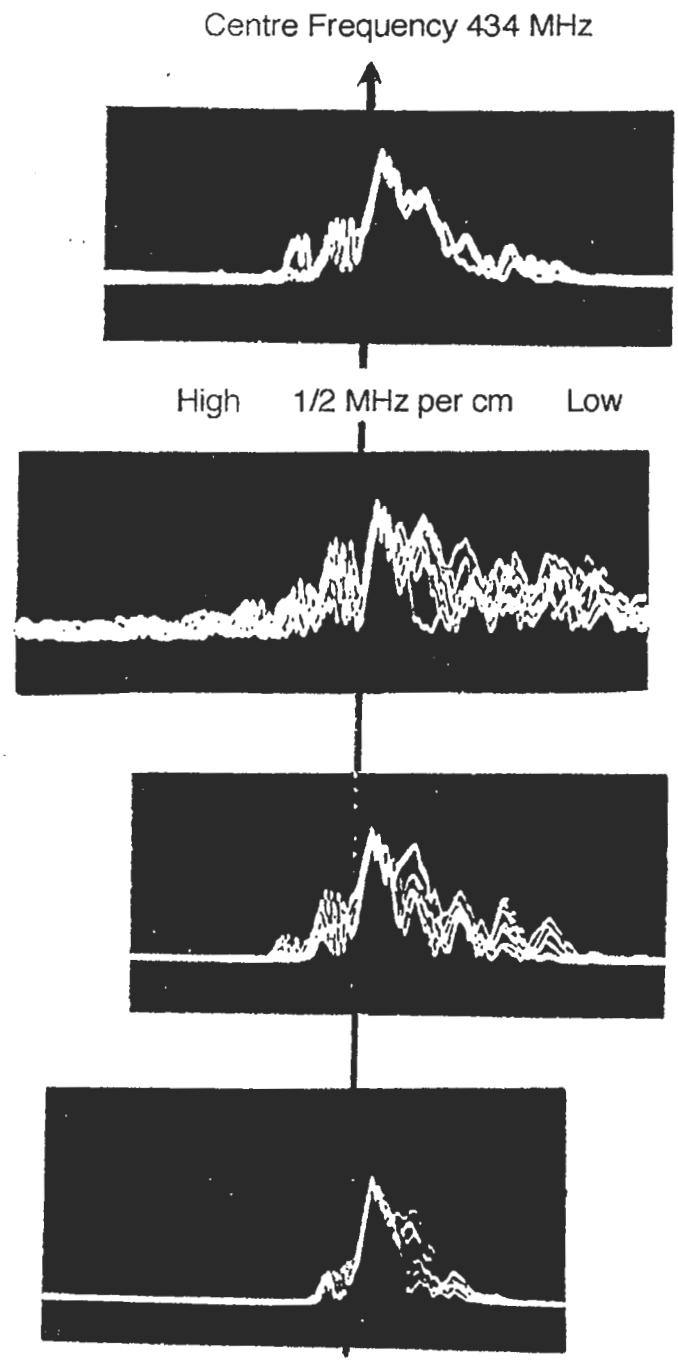


This patient was referred almost four years after his seroconversion illness when becoming infected with the HIV virus. In late 1991, he developed "herpes zoster", "uveitis" in his left eye, weight loss, night sweats, diarrhoea, continuing ulcer and "reflux oesophagitis" problems and various chest infections. He was diagnosed as being in the first stage of AIDS. The first EMR treatment produced an increase in CD4 and CD8 counts but was combined with an alpha interferon trial which lead to severe side effects and he was retreated three months later in July and August 1992. The antibiotics were failing, steroids were administered and he developed liver problems. With change of antibiotics his liver recovered and two further courses of treatment in 1993 and 1995 were given. His Polymerase Chain Reaction has been negative since the final course of treatment in 1995. As would be expected after recovering from another serious viral disease such as small pox he retains evidence of the HIV infection which manifests itself as inert viral DNA remnants.

MALE - DOB 10 JANUARY 1949

HIV POSITIVE

Probable CMV in right eye: Bilateral Irido-Cyclitis and Uveitis



DATE:

15 March 1993 SPLEEN/LIVER

22 March 1993 SPLEEN/LIVER

29 March 1993 SPLEEN/LIVER

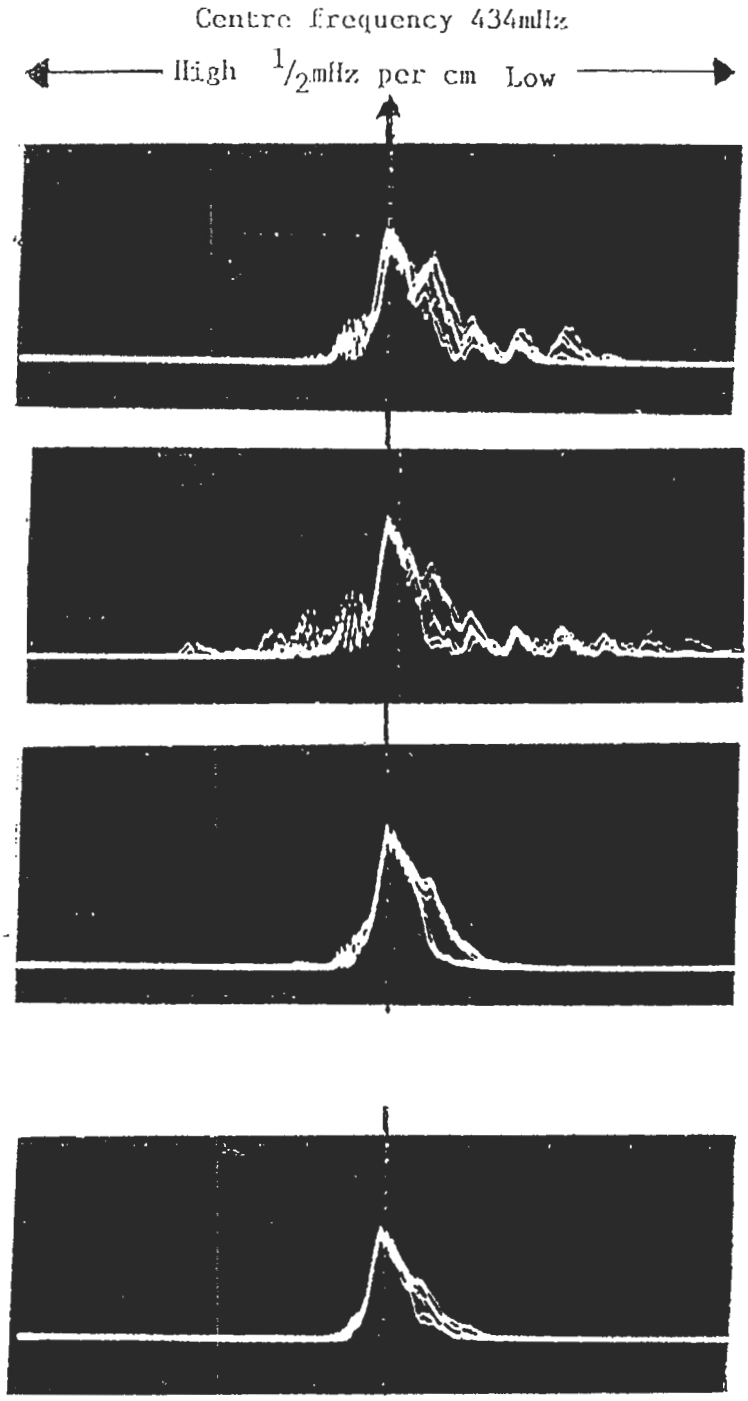
2 April 1993 SPLEEN/LIVER

15 Treatments:
2.4 gm Cystine, 1.0 gm GSSG

Confirms that resonance and fluorescence from these areas was continuing in 1993 but by the end of treatment the pattern had reverted almost to normal. It was approximately a year after this treatment that suggested his Polymerase Chain Reaction was negative for active HIV virus. No virus, alive and well 2006.

Male - D.O.B. 28 March 1961

H.I.V. POSITIVE



17 May 1993

SPLEEN/LIVER

24 May 1993

SPLEEN/LIVER

31 MAY 1993

SPLEEN/LIVER

13 AUGUST 1993

SPLEEN/LIVER

No HIV detectable in early 2006.

Figure 5: An HIV positive patient who also suffered from acute lymphatic leukaemia with proof of disease in lymph nodes in the neck, nasopharyngeal region, enlarged groin nodes and positive marrow involvement from iliac marrow sampling. This was the first course of treatment and shows the relatively normal pattern of reflections from the lower femoral region. The spleen and liver spectra were typical with resonance at lower frequencies and fluorescence at higher frequencies. After a week's treatment there was little change but his review three months later suggested a pattern of reflected energy approaching normal. At this time a marrow sample was within normal limits and all his cutaneous lymphadenopathy had disappeared and his nasopharynx was normal. A further course of therapy was given in August 1993. Yearly blood counts have been performed but he has not had a PCR testing. He remains clinically well with a CD4 count approximately 300 and a CD8 count of 1470.

MESOTHELIOMA

An "Incurable, Untreatable" Cancer

Mesothelioma is a malignant cancer of the linings of the cavities of the chest or abdomen. No method of cure has been described in the world's literature: responses to x-ray therapy, cytotoxic drugs and/or interferon, antisera, genetic preparations etc are negligible. It is resistant to x-ray therapy because the number of ER_{ex} units per cell (its x value) can be calculated as greater than 12, usually over 20.

Attempts to treat mesotheliomata with x-ray therapy all fail. Whilst erosion of the bone can be palliated with high dosage short time treatment localised x-ray therapy it does not prolong life. The average survival in Western Australia after conventional treatment of mesothelioma patients from diagnosis to death is a few days over nine months.

Between 1975 and 1988 107 patients were treated with various combinations of cytotoxics, conventional x-ray therapy and ultra high frequency 434 MHz microwaves in various combinations. Cytotoxics delivered before UHF produce a slightly better survival of a maximum of 20 weeks compared with the reverse combination which has a maximum survival of 13 weeks.

Group		Site	Treat	No. Patients	Survival (weeks)	
					Average	Maximum
1	A	Lung	Cy + UHF	27	12	20
	B	Lung	UHF + Cy	16	7	13
2	A	Lung	X + UHF	26	43	57
	B	Lung	UHF + X	24	87	2 at 260+
3	A	Abd	X + UHF	7	12	23
	B	Abd	UHF + X	7	34	65

The treatment of mesotheliomata by conventional methods. 107 patients treated between 1975 and 1988. Cy stands for various cytotoxics, UHF is 434 MHz microwaves, X is X-ray Therapy at 150 rads a day to tolerance. Tolerance is a maximum of 3,000 rads to a half lung, 2,400 rads to a whole lung and 1,800 rads to both lungs. Larger doses cause death from acute radiation pneumonitis.

Presented at the XIIth International Clinical Hyperthermia Society - May 1992, Lyons, France

As with all other cancers treated with combined UHF and x-ray therapy, UHF is only a radiosensitising agent when delivered before x-ray treatment. From this regime two 5 year survivals emerge. Both suffered from very early disease, both had pleurodesis performed effectively thus drying up the effusion. One recurred at four years and died at five and a half years of the disease, the other developed coronary artery disease and had arterial grafting performed and had no obvious recurrence of his mesothelioma in the left chest. He died after his coronary surgery which was extremely difficult because of the post-radiation fibrosis and endarteritis. The abdominal mesotheliomata were moderately well palliated with two surviving just over one year.

Page 117 is a table of the only 23 mesotheliomatas referred for therapy using glucose blocking agents and microwaves. Six patients (numbers 1 to 6, Figures 12 to 17) have had complete remissions of their mesothelioma with long term survival and almost complete return to normal chest x-rays. The captions detail the exact history of each. All except number six were treated with small effusions without further draining and all have remained clear of pleural fluid for as long as they have been followed up. Three are alive without evidence of active disease (February 2000) at 108, 68 and 60 months, two were alive similarly at 60 and 36 months and have been "lost" overseas, and one alive at 48 months died after treatment elsewhere with interferon therapy, not having evidence of active disease.

Five patients (numbers 7 to 11) have all obtained excellent palliation of their disease, considerable improvement in their x-ray which has been maintained, apart from initial pleural paracentesis no repeat paracentesis has been required and all have survived more than 18 months in excellent health (see Figures 18 to 22). Several patients had excellent palliation of pain, clearance of effusions and moderate re-aeration of their lung but were unable to return for treatment. Most of these patients were treated from interstate or overseas and are denoted by the initials UR. Eight patients with very late stage disease were all palliated with control of their effusions and relief of pain and other symptoms.

All nine patients (numbers 15 to 23) had all had a thoracotomy with rib resection performed, all had extremely widespread intrathoracic disease which recurred very rapidly after the thoracotomy and all were suffering from extrathoracic disease, four of them having widespread abdominal disease with ascites. Figure 26 typifies this group of patients. Any patient with a mesothelioma presenting with a scar of a thoracotomy and a recurrence in or near that scar is certainly going to die. In its present development of glucose blocking agents and microwaves once disease has reached this stage and has been surgically spread palliation alone may be possible. The average survival of these patients, four of whom were not treated, is measured in approximately seven weeks. Numbers 15 to 19 were treated solely to palliate their pleural effusions and to try and avoid repeated drainage. This was successful on all occasions.

Amongst this group patient number three was tempted by news reports of a better method of treatment elsewhere, removed herself from our supervision and after interferon therapy died, having already survived 48 months and her chest x-ray showed minimal disease. She was the only patient with bilateral pleural disease and her last x-ray under our care is shown in Figure 14C.

Advertisement of large grants of money to a thoracic medicine department in the local hospital resulted in several patients attending at that centre for diagnosis. They all had early disease and were told that they would have to wait until sufficient disease appeared so that it could be monitored by some form of radiological and/or other methods of scanning before they could be admitted to the trial. Unfortunately when this disease progression had been monitored some were informed that they were unsuitable for the trial! Patient number 20, having waited for disease to be obvious radiologically so that she could be assessed during trial of a government supported research program was told that she had waited too long! She was incurable even by my standards at that stage.

Patient No.1 is cured (2006), No.5 deceased in 2004, and No.6 died (cardiac disease) in.2003.

Conclusions Reached Regarding Mesothelioma Treatment

Conventional medicine is correct in stating that it is an incurable cancer.

Microwaves have shown that this is not always correct. A small group of patients is almost certainly cured of the disease. In the group of 23 patients various blocking agents were used in a rational attempt to discover the optimum combination. The best results have come from using some cystine derivatives before UHF Therapy. This combined with oxidised glutathione is also very effective. Oxidising agents with microwaves or combined with disulphide compounds based on cysteine and glutathione have some temporary effect but are not curative.

Very high dose insulin therapy (for example 3000 or 4000 units of soluble insulin intravenously) followed by microwaves appear extremely interesting for trial but without the staff and resources of a hospital in which this can be performed is beyond the scope of my practice in 1998.

This table compiled in July 1998.

GLUCOSE BLOCKING AGENTS BEFORE U.H.F.

Number	X-ray Figure	Sex	Age at Diagnosis	Diagnosis Date	Site	Effusion	First Treatment	Months Survival at 1 Feb 2000	Comments
1	12	F	49	Dec 90	L	+	February 91	108	Alive. NSR.
2	13	M	44	Oct 85	L	+	January 86	60+	LSO after 1991 x-ray. Overseas.
3	14	F	47	Apr 86	LR	+	June 86	48+	June 90 Interferon, cytotoxics. Died June 90.
4	15	M	41	Aug 88	L	+	September 88	36+	LSO after 1991 x-ray.
5	16	M	46	Mar 95	R	+	May 95	68+	X-ray Apr 98 reported "scarring".
6	17	M	50	Aug 95	L	-	December 95	60+	Alive NSR.
7	.18	M	73	Jan 91	R	+	May 91	20	Faithhealers -FIJl- died pneumonia March 93.
8	19	M	53	Dec 93	R	+	March 94	22	Died June 96. Last x-ray June 95.
9	20	M	59	Sept 92	R	+	December 92	24	Died Dec 94. Last x-ray Sept 94.
10	21	M	60	Aug 94	R	+	December 94	23	Died November 96. UR. Retreatment and last x-ray Oct 96.
11	22	M	69	June 91	L	+	September 91	18	Died March 93. Last x-ray Dec 93.
12	23	M	58	June 94	R	+	September 94	7	Died April 95. UR. Last x-ray Nov 94.
13	24	M	55	Aug 93	R	+	July 94	11	Died June 95. UR. Last x-ray Jan 95.
14	25	F	54	Jan 97	LP	++	July 97	4	Died November 97. UR.
15		M	55	Aug 93	L	+	July 94	11	Excellent palliation. UR. Died June 95.
16		M	63	Feb 91	RABO	+	January 92	6	Effusion cleared. UR. Died Aug 92.
17		M	73	Jan 93	RO	+	February 93	3	Effusion controlled. Too ill to continue. Died June 93.
18		M	59	Dec 95	LO	+	April 96	4	Effusion controlled. UR. Died Aug 96.
19		M	44	Mar 92	LAO	+	June 92	1	Not treated, had X-ray Therapy. Died August 96.
20		F	40	Sept 93	RABO	+	March 94	4	Pain palliated and effusion controlled. Died July 94.
21		M	46	Aug 90	RAO	+	February 92	1	Treated as tuberculosis for 1 year. Too ill and not treated.
22		M	70	Aug 95	LO	+	October 95	1	Too ill - treatment abandoned. Deceased Nov 95.
23		M	63	Jan 92	RABO	+	February 92	1	Too ill - treatment abandoned. Deceased March 92.

Figure 1: 23 Mesotheliomata treated with various glucose blocking agents and 434 MHz microwave electromagnetic radiation. Patients 1 to 14 were biopsied by needle only: disease was confined to the chest cavity. Patients 15 to 23 all had an open thoracotomy and all had extrathoracic disease.

Abbreviations: R, L and P indicate Right or Left lungs and Pericardium, + indicates effusion present when first treated, A indicates Abdominal spread, B indicates Bone secondary cancer, O indicates Other sites of secondary cancer, NSR is No Sign of Recurrence, LSO is Lost Sight Of, and UR is Unable to Return for further therapy (costs, travel problems etc).

MESOTHELIOMA

GLUCOSE BLOCKING AGENTS BEFORE U.H.F.



started therapy 6/12/1990.

PATIENT No. 1.



Alive cured

Chest X-ray, 6 Dec. 1990.

Chest X-ray, 15 Feb. 2005.

From Dec. 1990, 5 ,15 day courses given. This lady developed a malignant melanoma, upper abdominal skin area and 2 extra courses were given after surgery, finishing on 16 April 1995. No recurrence of either cancer in 2006.

Patient No. 2

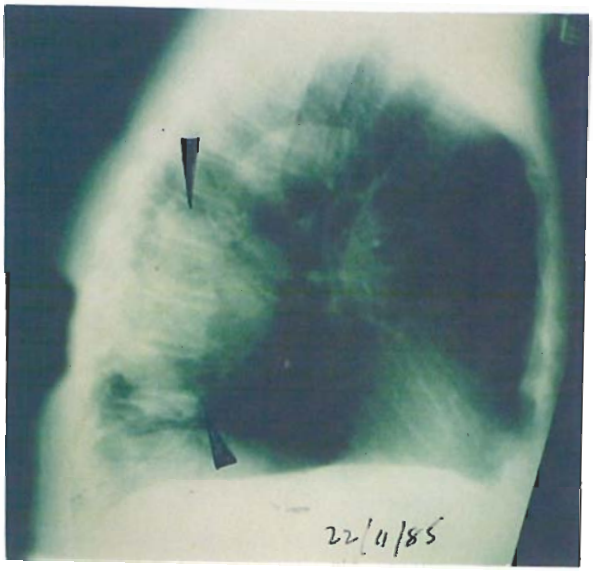


Figure 13A: A lateral x-ray taken on 22 November 1985. Treated January 1986. A large mass is seen attached to the posterior wall of the chest (arrowed).

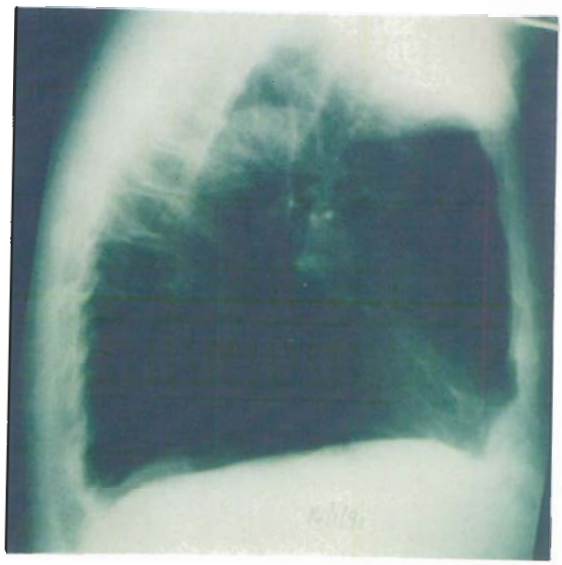
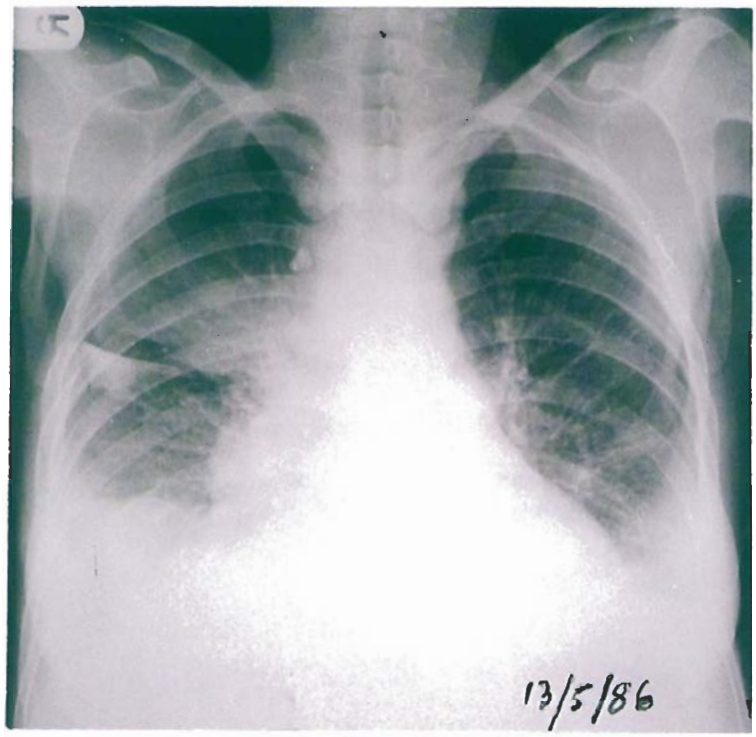


Figure 13B: An x-ray taken on 14 January 1991. The other views are not available and these were only obtained from copies of x-rays taken overseas. He had had no further treatment and survived 60 months. Attempts to trace him overseas have been fruitless, fate unknown.



Patient No. 3

Figure 14A: The only patient with bilateral mesothelioma disease of the pleura. X-ray taken on 13 May 1986.

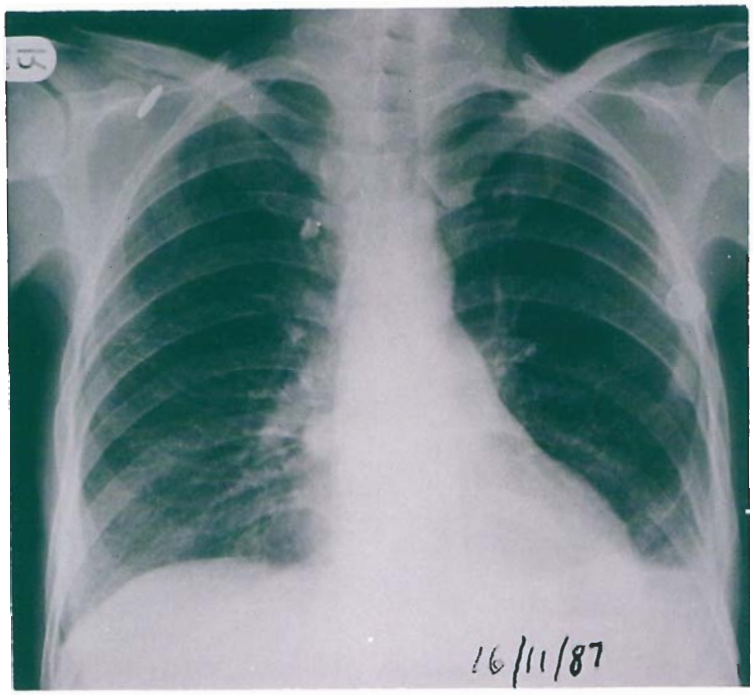
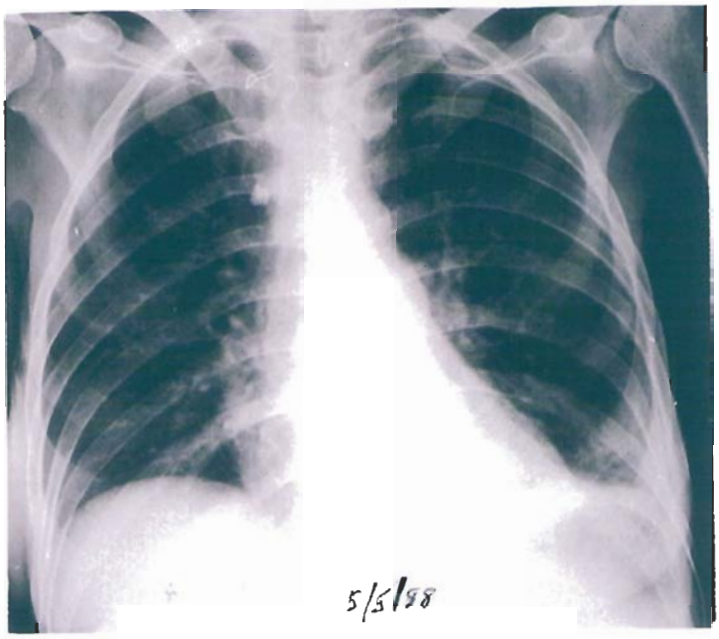
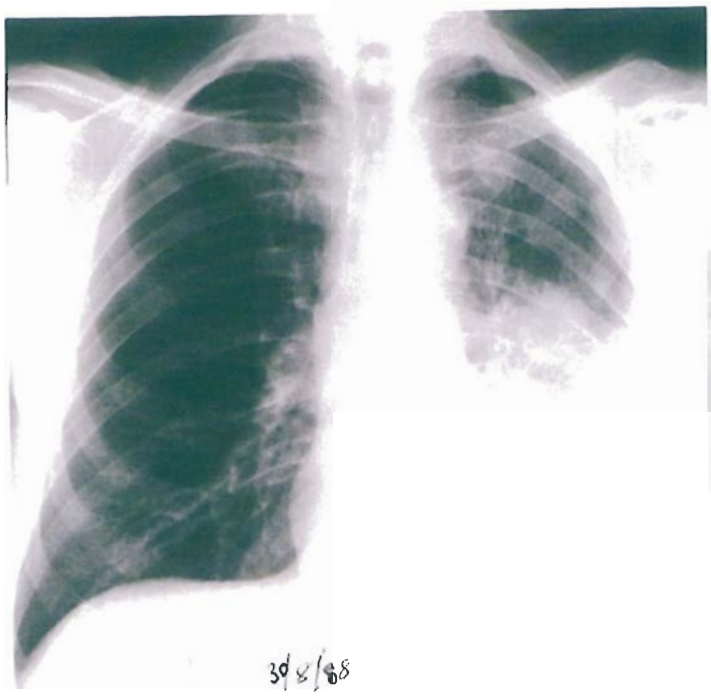


Figure 14B: Treatment in June 1986, x-ray taken on 16 November 1987.



Patient No. 3

Figure **14C**: In May 1988 was retreated for active disease in her left pleural cavity after this x-ray was taken. No further films available. In May 1990 she was treated with Interferon and cytotoxics and died 48 months after her original treatment by microwaves.



Patient No. 4

Spectral reflections of his first treatment shown on page 108 at the bottom tracing.

Figure 15A: The x-ray appearance on 30 August 1988 on diagnosis by needle biopsy and drainage of his effusion.

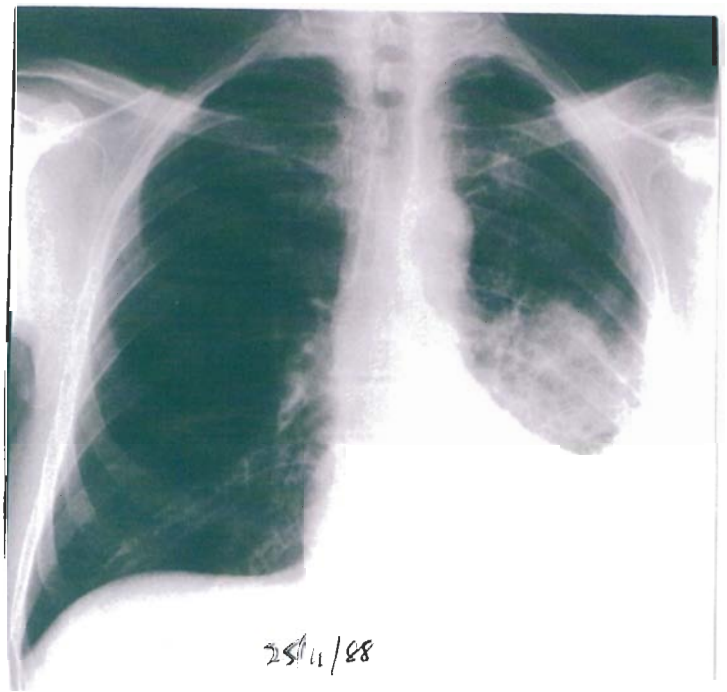
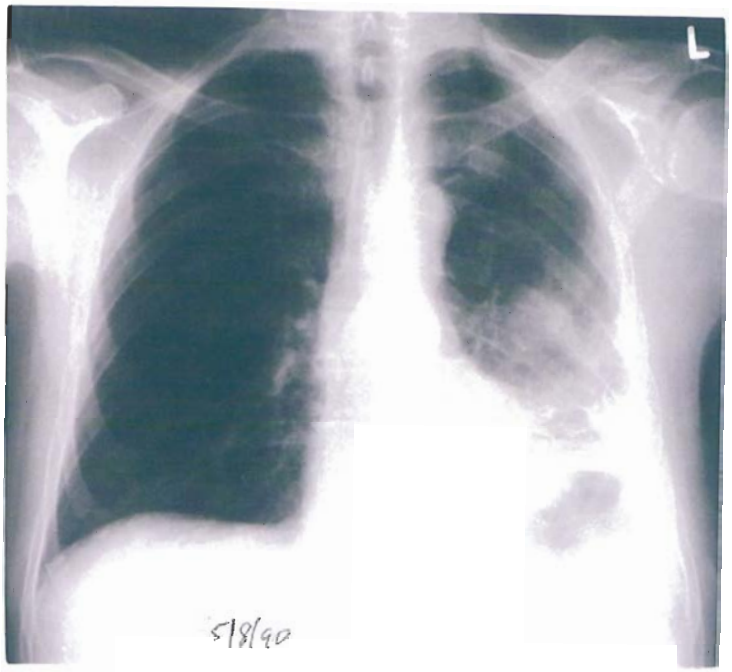


Figure 15B: After a course of treatment in September 1988. X-ray taken on 25 November 1988.



Patient No. 4

Figure 15C: His disease became active again (x-ray on 5 August 1990) and he was retreated on two occasions.

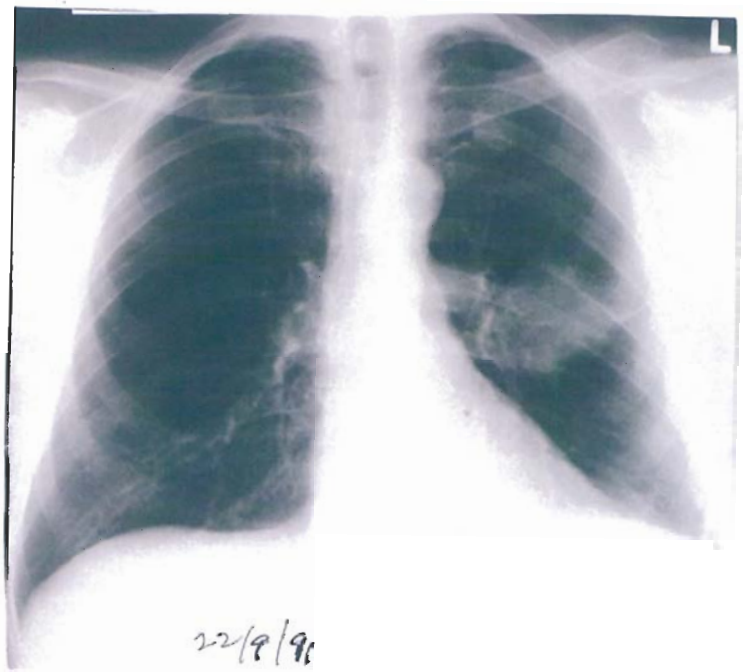


Figure **15D:** The x-ray appearance on 22 September 1991. His fate is unknown, presumably dead. He was untraceable overseas.

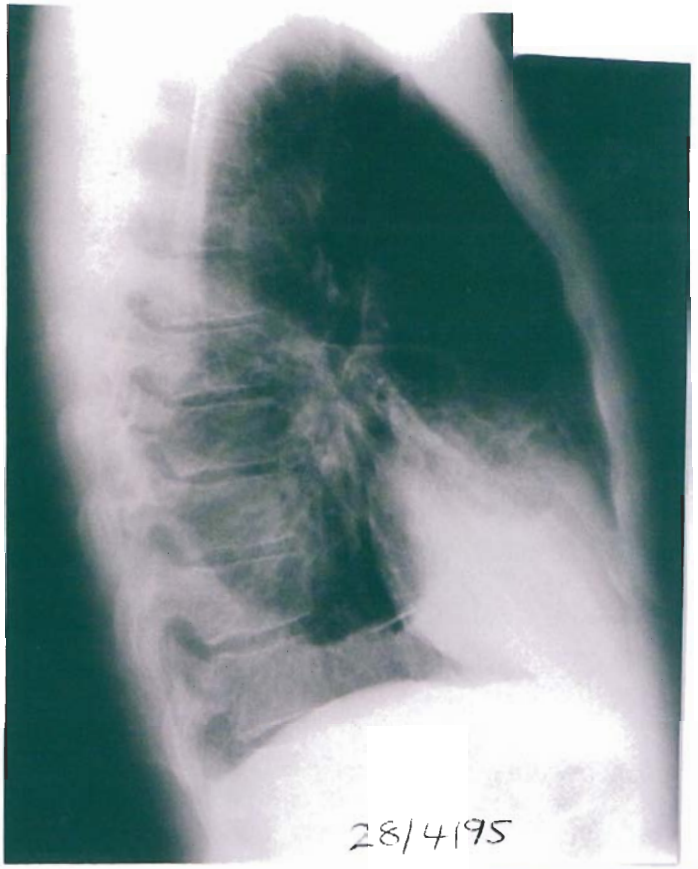


Figure 16A: Short history of three months before diagnosis in March 1995. The lateral view shows the mass in the posterior chest which is obscured by the small effusion on the other view. Treated April 1995. X-ray taken on 28 April 1995.

Patient No. 5

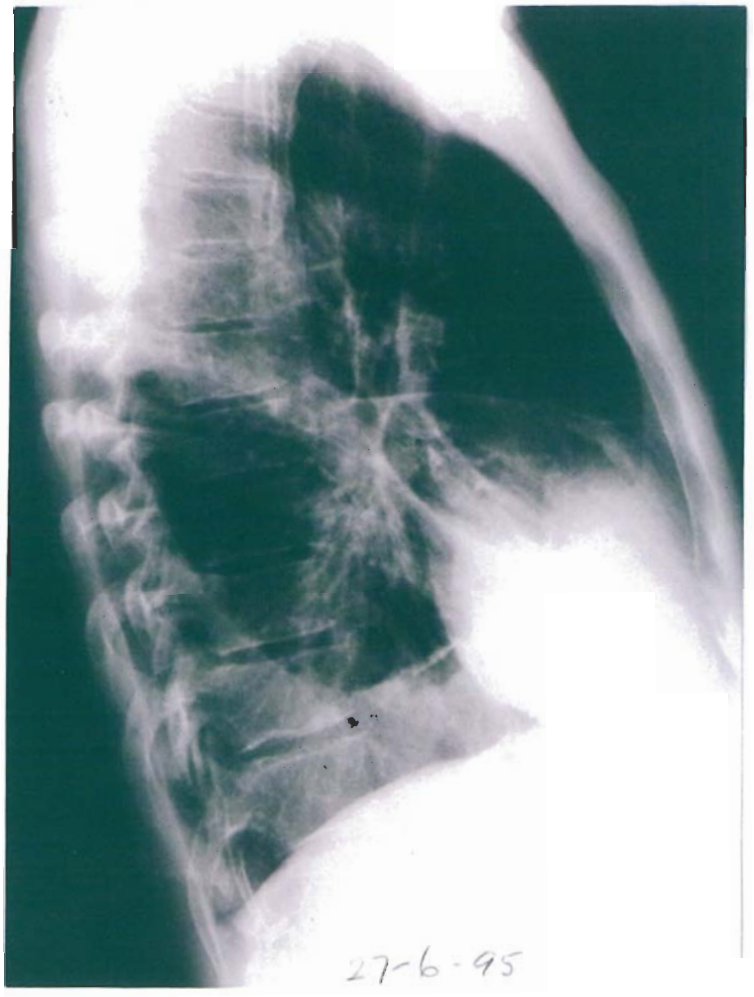
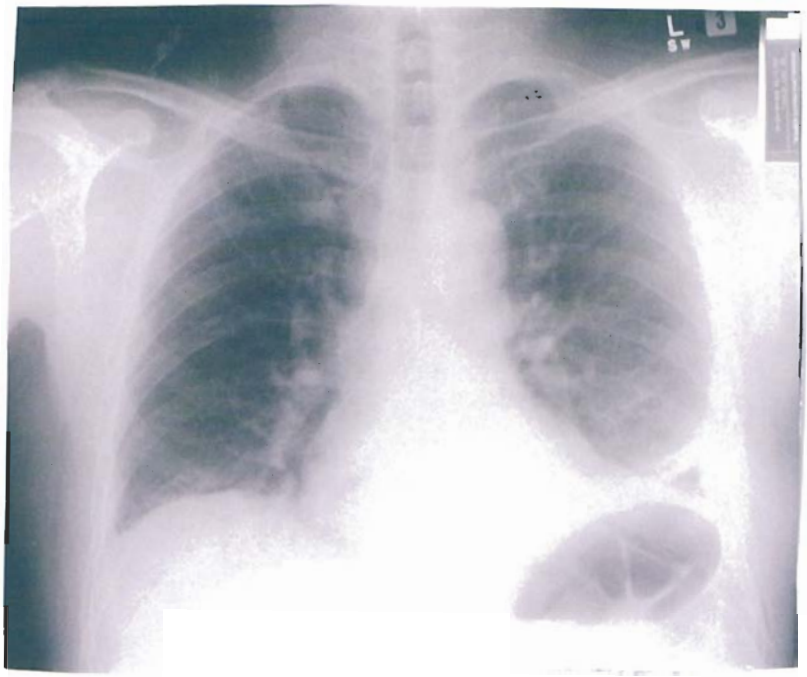


Figure 16B: X-ray on 27 June 1995 showing complete resolution of the mass but with some effusion remaining. No further treatment was given, he was contacted and reported having a chest x-ray showing some scarring in March 1998.

Patient No. 5 was reported deceased in December 2004 by a Doctor in a South London practice who was interested in his treatment method.



Patient No. 6

Figure 17A: A short history thought to be lung cancer but needle biopsy finally established mesothelioma and this x-ray was taken on 23 November 1995. Treated shortly afterwards.

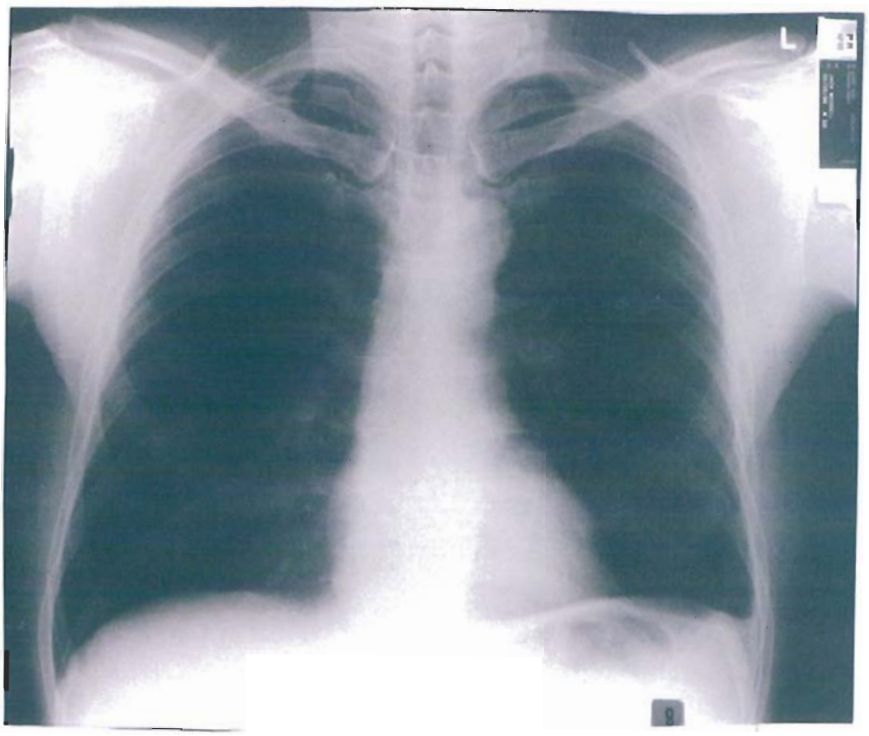


Figure 17B: An x-ray taken on 26 March 1998 suggests a possible activity in the left costo-phrenic angle and he has just been retreated. Completely asymptomatic. 29 months survival to date with normal or near normal x-ray. Death reported from coronary disease, september 2004.

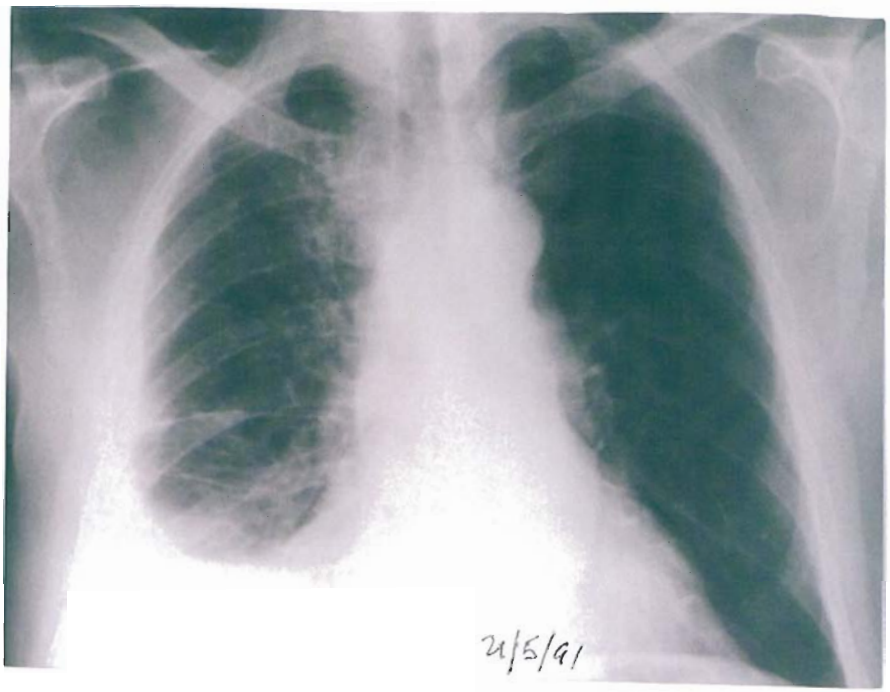


Figure **18A**: A seven month history, diagnosed in May 1991, this x-ray was taken 21 May 1991. Given a course of treatment.

Patient No. 7.

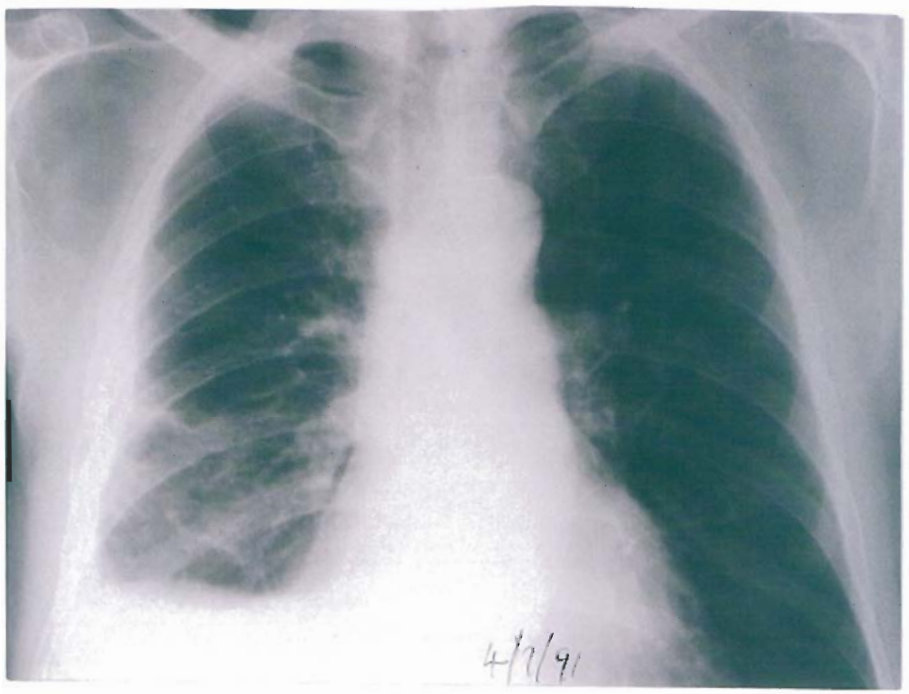
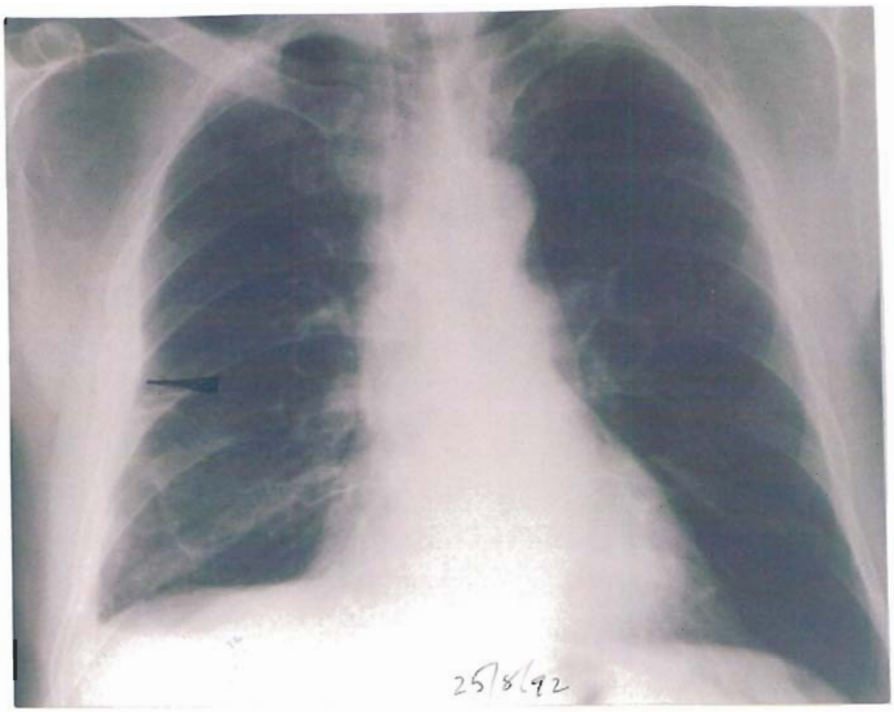


Figure **18B**: The result of one course of treatment on 4 July 1991.



Patient No. 7.

Figure 18C: X-ray taken a year later on 25 August 1992. An excellent result with control of his effusion but some mesotheliomatous plaque is still present along his right rib cage. He decided, having survived 20 months with considerable improvement, to visit a faith healer in the Fiji islands. Sleight of hand produced some chicken liver, apparently from his chest, and he rapidly went downhill and died of a pneumonia approximately two months later in March 1993.



Patients Nos. 15 to 23.

This summarises the remaining 9 patients. All had a thoracotomy, all had recurrence projecting through the site of a rib resection and the majority of patients had multiple deposits elsewhere. Treatment was only given for palliative relief of effusions. The final four patients in the series were all too ill and were unable to tolerate any effective therapy. This series shows that if a diagnosis of mesothelioma is made and the clinical picture is as presented in this figure then even glucose blocking agents and microwaves may be ineffective in their present form.

MESOTHELIOMA OF ABDOMEN AND SYSTEMIC LUPUS ERYTHEMATOSIS

Mrs JS, Date of Birth 3/9/1945

SLE Facial Butterfly Rash **After 3rd course of therapy**





SLE DIAGNOSED IN 1982. Immunoglobulin IgM at 29 gm/litre. Abdominal cavity Mesothelioma on X-ray, proven by peitoneal biopsy, January 2000. and she was on continuous medication for her SLE. Treated with glucose blockers and U.H.F.,26/4/00 to 16/5/00. Second course 17/7/2000 to 4/8/02. Her IgM was 1.8 gm per litre and her SLE symptoms had disappeared. Her cancer was reduced and two further courses of U.H.F. etc.were between 6/11/00 & 23/11/00 and 29/1/01 & 16/2/01. C.T. abdomen 16/2/01 X-Rays of her abdomen showed no evidence of Mesothelioma, only some liver cysts of no significance. 5 years later has no recurrence, of either disease.

ESTABLISHMENT OF RADIOSENSITIVITY VALUES (D_o)

Maximum.

A. Van den Brenk's method of tourniquet anoxic followed by large x-ray dosages (45% 5 year cure rate of juvenile osteogenic sarcoma) proves that active ER_{ex} D_o values are below single doses of 1,600 rads. (The clinical results are on pages 130-133.

B. Holt's modifications doubled his results to a 95% 5 year cure rate of similar sarcomata when the isolated limb was kept warmed using electrically generated heat.

i). Hot wax at 50°C on the limb for the 30-45 minutes between tourniquet application (limb temperatures averaged 40°C) failed to improve results.

ii). Covering the isolated limb with a 50 Hz electric blanket produced a 95% local cure and survival rate.

iii). UHF was more cumbersome with similar results, therefore abandoned.

C. Results proved that uncontrolled cancer's E-R_{ex} can be stimulated by all frequencies; only 434 MHz created a large increase in x-radiation sensitivity. The next page shows the effect of 27 MHz physiotherapy radiation.

NON-THERMAL 27 MHz CANCER STIMULUS



5 April 1977: 5 year history of rodent ulcer - eroding the left orbit.



19 April 1977: 2 weeks later after 10 doses of 27 MHz diathermy to jaw and neck joints for arthritis.

27 MHz is a dangerous frequency. It will stimulate all cancer to grow faster. This is not a frequency used in my treatment.

ANOXIC RADIOTHERAPY

The 2 next pages show typical results from this method, pioneered by Dr. van den BRENK, M.S., F.R.A.C.S., F.F.R., F.R.A.N.Z.C.R. in Melbourne before he became Professor of Radiotherapy in a London Teaching Hospital and of Radio-Biology in London Univeraity. I migrated to learn his techniques before he lost his appointment in Victoria. See my Bibliography No. 16.

Pasteur and Warburg have established that the anaerobic glycolysis of fermentation is the power source creating life and cancer, in an oxygen free atmosphere of our planet. When oxygen entered the atmosphere Pasteur's Reaction (aerobic glycolysis) controlled sophisticated multicellular life in a very radio-active world. Limb cancers, mostly bone sarcomata, are usually too Radio-resistant, needing huge X-ray doses creating permanent damage without cures.

Where an oxygen excluding Tourniquet can be applied to a limb cancer then Pasteur's Reaction, aerobic mechanisms and all other damage of high dose X-rays DOES NOT OCCUR. These pictures, the method and cure, prove that living tissue easily tolerates tens of thousands of lethal doses in an oxygen free World!

E-R_{ex}'s INTELLIGENCE would make itself inactive from time to time to restore it's own tolerance. HENCE THE SURVIVAL OF LIFE IN AN INTENSELY RADIO-ACTIVE globe. Perhaps sleep is an atavistic remains from the birth of Life. Using such huge X-Ray doses, U.H.F. as a radio-sensitiser is not needed. INSTEAD ANY RADIO FREQUENCY IS ESSENTIAL AS AN E-R_{ex} ACTIVATOR: A 50 Hz. ELECTRIC BLANKET IS SIMPLE.

SQUAMOUS CANCER ENCIRCLING THE FOREARM

A farmer who wore rubber gloves to put his hand into buckets of pesticides (some agent orange) for two years. The cancer encircles the lower/middle third of the forearm. Cured when seen 15 years later.

SKIN CANCER

1 September 1978



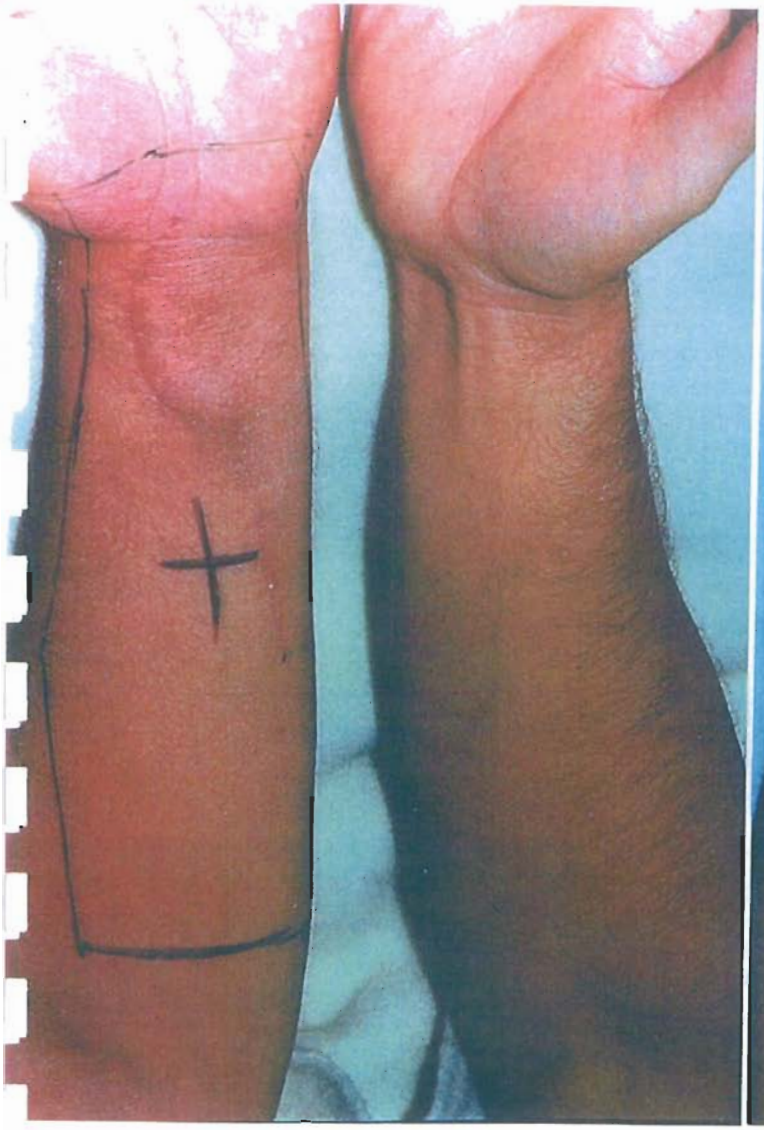
7 April 1984



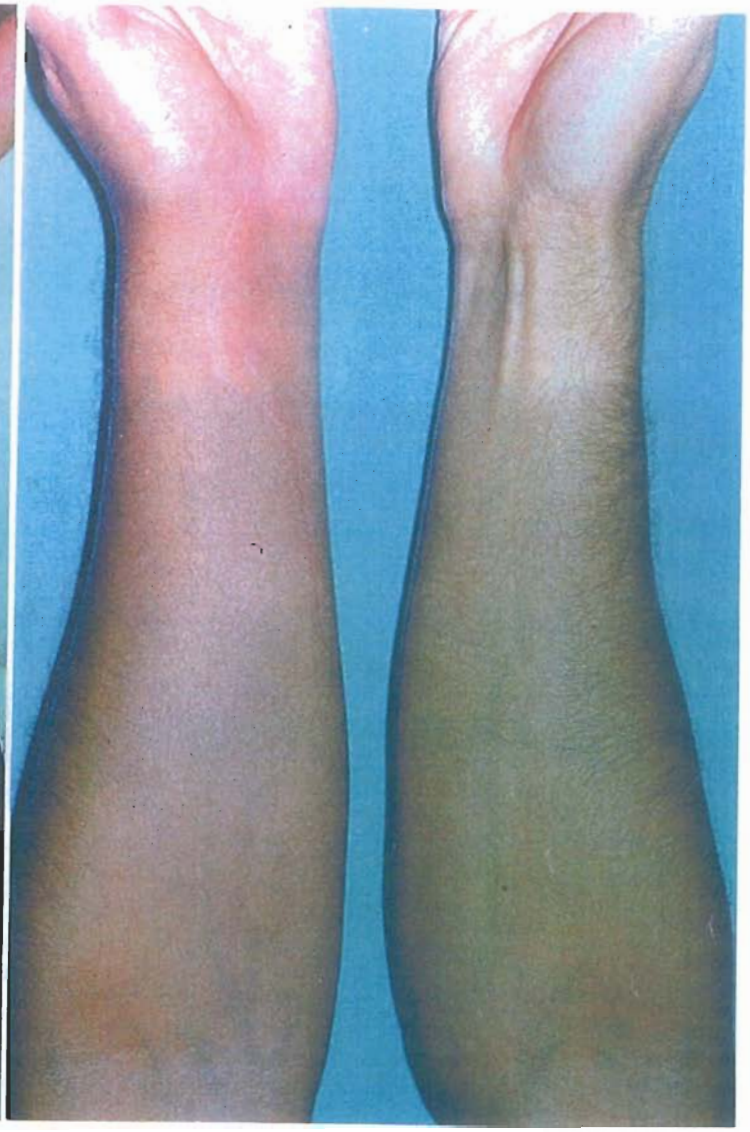
Treatment: Tourniquet to left upper arm, inflated to 50 cms Hg. above his systolic blood pressure for 30 minutes (under general anaesthesia), an electric blanket applied to the arm below the arterial block. This will activate the E-R_{ex} units. 6 weekly treatments, 1,700 rads delivered uniformly, (2 opposed fields at correct focal skin distance for uniformity), once weekly for 10,200 rads.

ANOXIC RADIOTHERAPY

Tolerance of human tissues to 10,000 rads radiation



Mr JJB: A second recurrence after 2 attempts to remove a fibrosarcoma of his forearm. Fields as marked, parallel opposed. 9,900 rads ± 150 delivered in 6 fractions, January 1972.



Mr JJB: 6 months after treatment. Complete resolution without any acute radiation reactions or complications.

Properties of ER_{ex}

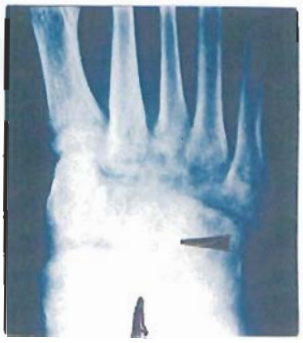
1. 2,500 to 10,000 rads (ergs per gram) is tolerated when the cell is anoxic.
2. 160 rads energy reduces an oxygenated cancer colony to 37% - its D_o value.
3. UHF before 95 to 100 rads energy reduces an oxygenated cancer colony to 37% - its D_o value.
4. Any frequency from 1 Hertz to 1000 Giga Hertz, eg 50 Hz mains electric blanket, will activate ER_{ex}: only 434 MHz sensitises the D_o value to 95 rads.
5. Aerobic glycolytic systems control ER_{ex} and when damaged cause cancer. A single dose exceeding 600 rads appears to damage any functioning aerobic mitochondria.

Avoiding Amputation - Osteogenic Sarcoma of Foot Bone

This young man was called up for military service in the Vietnam war, and was accepted for active service!!. In Vietnam the Medical Officer heard somehow that he had been treated by me for foot cancer and he was discharged in case of any possible accidents.



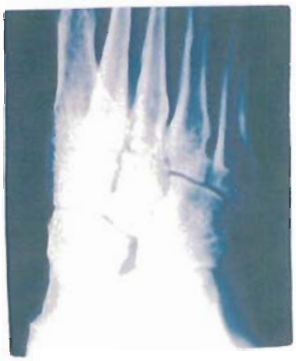




Before treatment:
X-rays applied from each side to these marks.

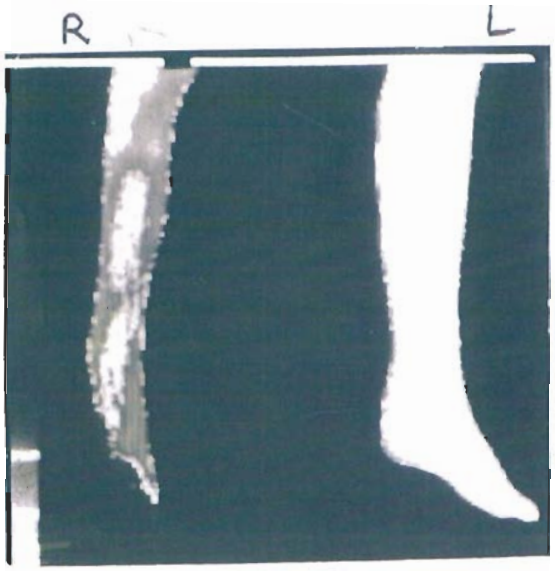
Cancer of bone where arrows meet.

After treatment:
3 years later.
Normal foot.
Normal x-ray.
Last examined 10 years later, no recurrence.



TREATMENT DETAILS

Apply tourniquet as high as possible on right leg and inflate to 500 mm of mercury pressure. The thermograph (lower left) reveals cooling to prove tourniquet is correctly applied. Apply a 50 or 60 Hz electric blanket for 30 minutes and this activates all E-Rex cancer systems whilst the anoxia from tourniquet protects Pasteur's reaction and all other cell contents. Apply 1,700 rads once weekly for 6 doses or 2,500 rads once weekly for 3 doses.

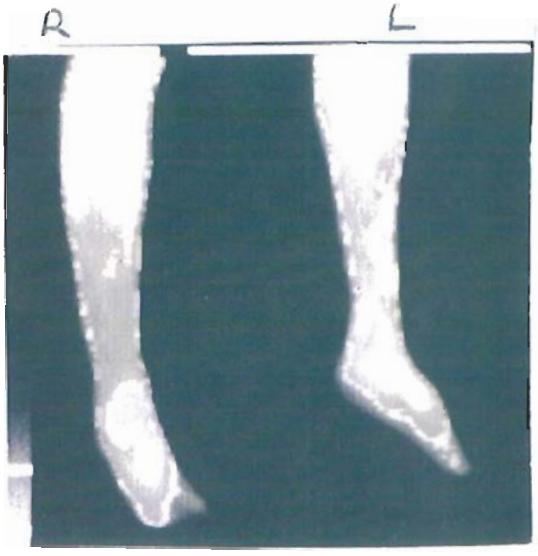


TOURNIQUET APPLIED:

Right leg cools

Right leg after electric blanket

ADEQUATE ALTERNATING CURRENT ELECTRICAL STIMULATION IS ESSENTIAL.



ANOXIC RADIOTHERAPY

Tolerance of human tissues to 10,000 rads radiation



AVOIDING

AMPUTATION

A



B

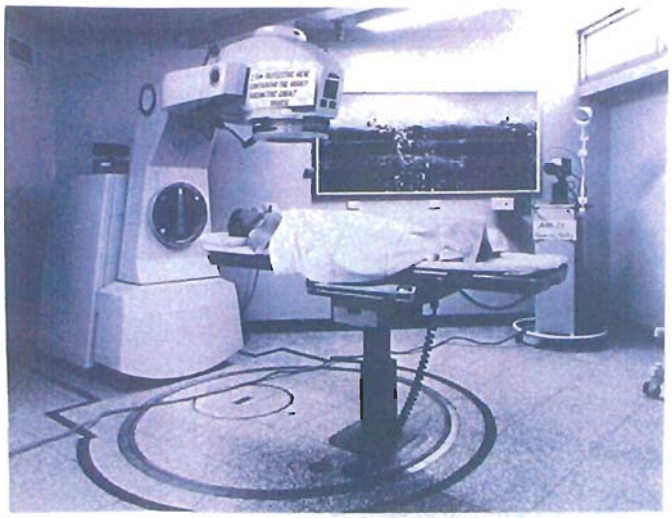
A A young lady who sustained a severe sporting injury on the front of her shin. She developed a sarcoma of the periosteum which in spite of excision then burst through the wound. The markings indicate how the leg was treated from side to side with x-ray therapy. Six treatments, twice weekly, consisted of putting a tourniquet on to occlude the blood supply around the upper thigh, keeping the leg warmed with an electric blanket and delivering approximately 10,000 rads total dosage to the limb.

B Shows the leg on the final dose of treatment. The skin has healed, the malignancy has clinically disappeared. Four years later this young lady was involved in a taxi accident and had to have her leg amputated above the knee. There was no residual cancer present in the tibia which had been treated. There was also no evidence of any radiation damage from this large dose of x-ray therapy.

HYPERBARIC OXYGEN THERAPY

1963-1977: 800 patients treated in three atmospheres absolute of 100% oxygen with 6 x 600 rads at weekly intervals. Oxygen does NOT alter the sensitivity value of Head and Neck Cancer to x-ray therapy.

This method increases the control of primary Ear, Nose and Throat cancer from 4% to 12% at 8 years and their crude survival from 11% to 19%; with severe side effects. UHF and x-ray therapy combined are much superior and have few, if any immediate complications or sequelae.



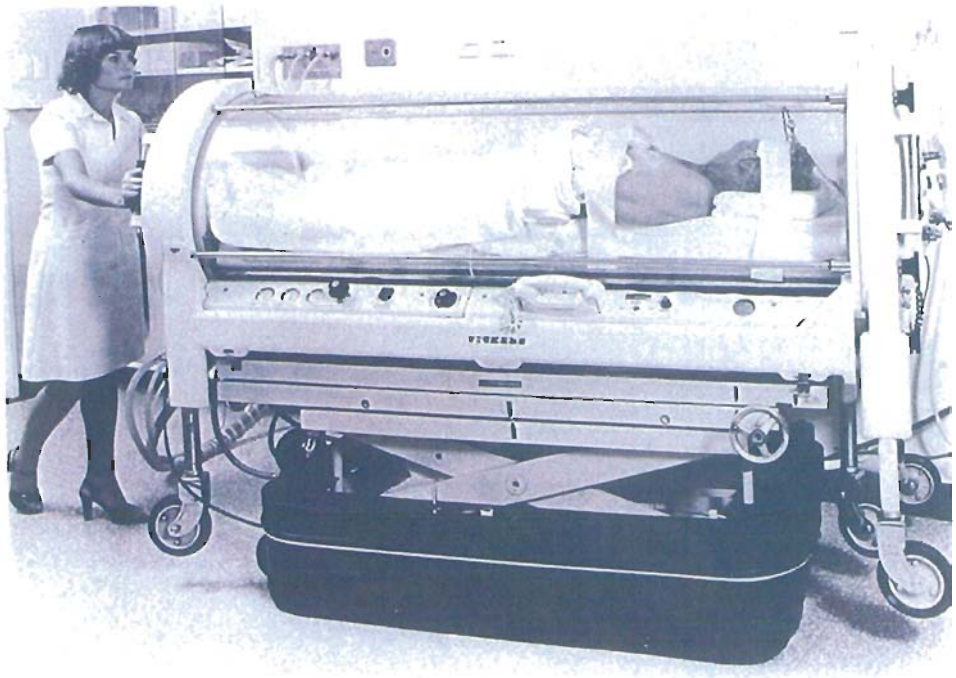




Figure 60A: A recurrence after surgical excision of an adenocarcinoma of the left parotid salivary gland. A malignant ulcer was leaking saliva and a partial facial paralysis had resulted from pressure on the left facial nerve. As a generalisation these are insensitive to conventional X-ray Therapy with a response rate lower than 15%. Under hyperbaric therapy conditions the salivary gland cancers all respond. Unfortunately this disease is prone to widespread secondary dissemination and long term cure is not greater than 50% even employing this method.

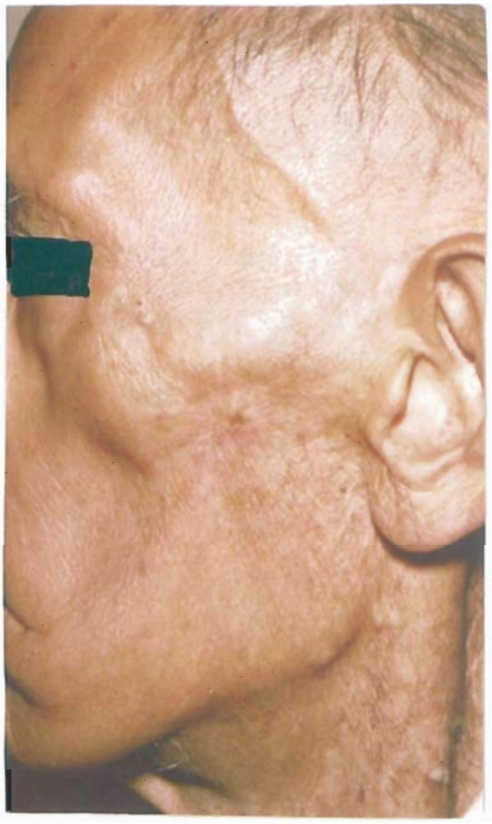
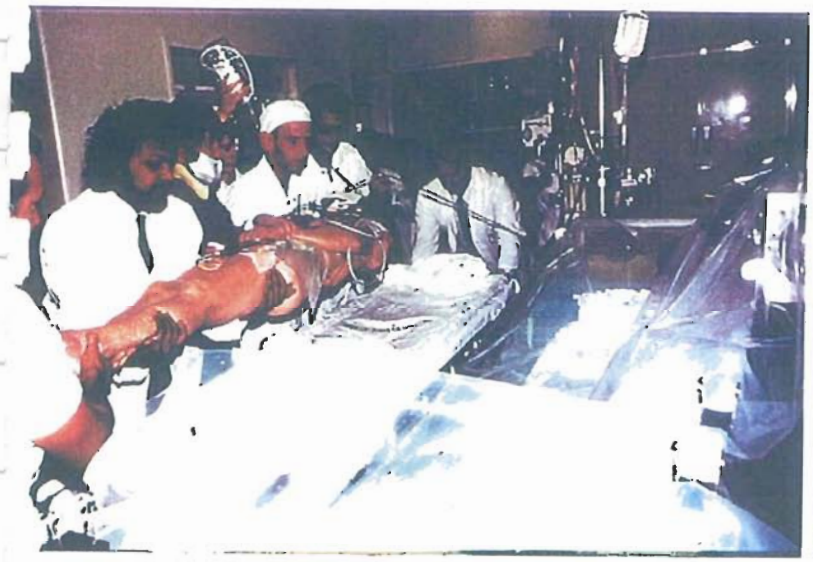
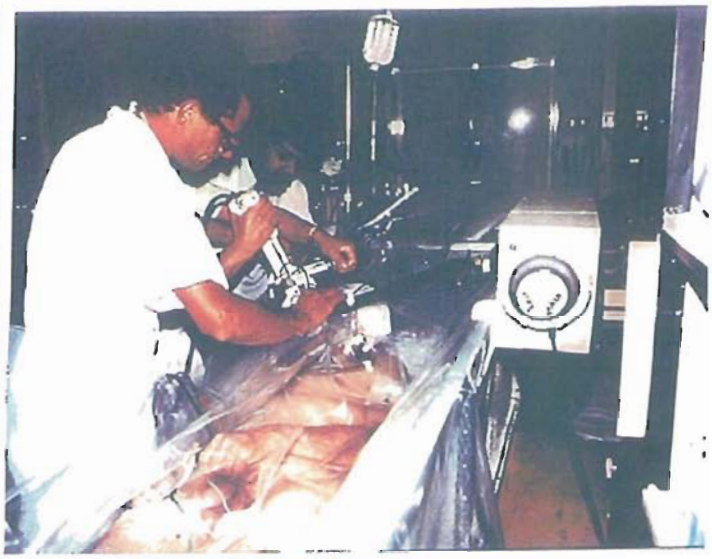


Figure 60B: Shows complete resolution after 6 doses of X-ray Therapy under three atmospheres absolute of high pressure oxygen.

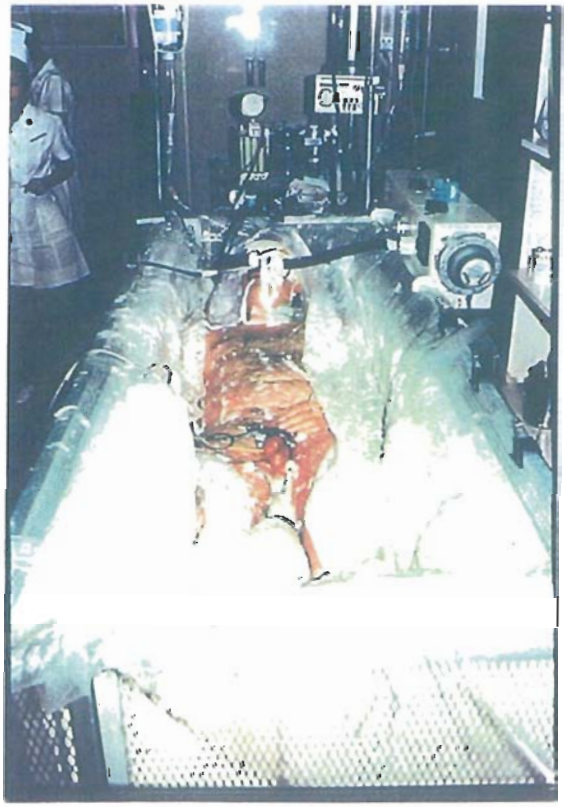
SIMPLE "HYPERTHERMIA" (41.8°C WAX BATH METHOD)

'968-1971 27 patients treated at 41.8°C from non electrical heating - wax bath hyperthermia.









D_o value decreases by a factor of approximately 1.04 to 1.12 (Z value) in $N_R = N_o\ (1 - (1 - e^{-ZD/D_o})^x)^y$.

No effect on x-ray kill.

SENATE ENVIRONMENT, COMMUNICATIONS, INFORMATION TECHNOLOGY AND THE ARTS REFERENCES COMMITTEE

Inquiry into Electro-magnetic Radiation

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CONFIDENTIAL:	No
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NO OF PAGES:	4
ATTACHMENTS:	Attachment 1: Publications by French and Colleagues relevant to this issue; Attachment 2: Publications referred to in this submission

ACKNOWLEDGEMENTS

The authors would like to acknowledge the contribution of Dr J. A. G. Holt, of the Microwave Therapy Centre, Perth, Western Australia, who was not only responsible for initiating the project but also provided the funding for Ms Donnellan and most of the consumables, and supplied the exposure chamber and associated materials. The authors would also like to thank Dr Russell Ludowyke of the Centre for Immunology for providing the cells for this study, and for many helpful scientific discussions. We would also like to thank Mr Daryl Gibson, Ms Lyndee Scurr and Ms Kim Pryor for excellent technical assistance, and Mr Jiwon Park and Mr Nicholas Cooper for assistance with field measurements.

MOBILE PHONES AND HEALTH EFFECTS – A SUBMISSION TO THE SENATE INQUIRY

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Background.

I have been studying the effects of radiofrequency exposures on cells (both human and animal) in culture over the past five years. Along with my colleague Prof David McKenzie, Professor of Material Physics, School of Physics, Sydney University, I have published three papers in international peer reviewed scientific journals demonstrating 'athermal' biological effects on cells in culture, including effects on cell growth and gene expression (see attached). In addition, we have two papers in the process of being published in peer reviewed scientific journals.

In considering the question of health effects arising from mobile phone use, there are four key papers that I wish to highlight for their unique insights into the critical facets of the subject. Copies of these papers are attached.

A. Theory of the mechanism of action.

The attached paper (which is in press in the Journal of Theoretical Biology) by Laurence et al proposes a mechanism by which pulsed radiofrequency fields such as those used by mobile phones could exert a biological effect. In brief, the paper postulates that the pulsed exposure can cause a shape change in key regulatory protein molecules in cells which can lead to a change in function of the protein, and therefore an alteration in key cellular processes, such as signal transduction, gene expression and cell growth. The exposure does this through the delivery of a pulse of energy which is absorbed by the target tissue. This pulse of energy would therefore act as a 'stress' imposed on the cell, in the same way as heat, some chemicals, cold shock and osmotic shock do. If this mechanism is correct, several important implications result.

Firstly, cells and tissues respond to such an imposed stress by making stress or 'heat shock' proteins to protect the proteins from undergoing change of shape.

Secondly, the degree of protein shape change determines the threshold of heat shock response. Therefore, if an imposed RF field was powerful enough to change the shape of a key protein in a way which altered its function BUT did NOT change it sufficiently to invoke the heat shock protein response, the biological effect would occur without defence. As the power is turned up, the degree of alteration of protein shape would become sufficient to both alter its function AND its shape sufficiently to activate the heat shock response, which would effectively negate or control the RF shock. This can therefore explain the 'window' effect reported in many RF experiments (eg French et al).

B. Biological Evidence for this theory.

A recent publication by de Pomerai et al ('Non-thermal heat-shock response to microwaves'. Nature 405: 417-418, 2000) provides evidence to support the above hypothesis. They report that nematode worms subjected to continuous wave RF energy at 750MHz respond by turning on the heat shock response Importantly, they report this effect occurring at an SAR (specific absorption rate) of 0.001 W/kg, which is 100 – 1000 fold LESS than current digital phones emit. This paper therefore pushes back the limits of exposure considerably. If biological effects occur at this level, does this imply effects at the whole animal/person level? The answer is it does, and there is evidence that it occurs.

C. Experiments in Animals

An Australian study published in 1997 (Repacholi, M. et al., 1997. "Lymphomas in Eμ-*Pim1* Transgenic Mice Exposed to Pulsed 900MHz Electromagnetic Fields." Radiation Research 147: 631-640) reported that the incidence of lymphoma was significantly increased in transgenic mice exposed to pulsed 900 MHz electromagnetic fields. The aim of this study was to determine whether long term exposure to pulse-modulated RF fields (selected specifically to correspond to those from mobile phone handsets) would increase the incidence of lymphoma in transgenic mice. The Eμ-*Pim1* system was chosen because although the mice are moderately predisposed to develop lymphoma spontaneously, for them to acquire malignancy the cells must undergo further mutagenic events in existing genes. *Pim1* mice "...would be expected to respond to carcinogenic agents with an increase in lymphomas because (they) express an activated oncogene selectively in the lymphoid cells." The advantage of this system is that it is highly sensitive to mutagenic or carcinogenic influences.

The result of exposure of the mice under very carefully controlled and characterised conditions was a 2.4 fold increase in the risk of developing lymphoma associated with the exposure. This was highly statistically significant (the statistical probability that the result was due to chance was less than 1%). Furthermore, the lymphomas developed much earlier in the exposed group than in the unexposed (control) group.

The authors emphasise the contradictory results and uncertain conclusions which exist in the scientific literature regarding the non-thermal effects of electromagnetic fields. The authors clearly do not regard RF as being able to directly induce mutations or activate genes, so they presumably do not regard RF as a potential carcinogen, even though by their definition in this system it could be regarded as such. Rather they hypothesise that the effect of the exposure is to induce a "transient low level warming of exposed tissues" which leads to increased cell proliferation and therefore to a greater probability of spontaneous lymphomas arising. Is this mechanism feasible? The authors comment on the subject of heating as follows: "Under the conditions used...the thermal load induced in an exposed mouse would have been small relative to the heat generated by normal metabolic activity". It therefore seems unlikely that such a small heat load could induce increased cell proliferation. However, it is possible that the RF field may act to induce an increase in cell proliferation by some other mechanism, as has been reported for RF frequencies in lymphocyte cultures. It is also possible that RF exposure may induce the increased expression of an oncogene such as c-*fos* or c-*jun*, as has been shown by other workers for extremely low frequency fields.

It is true that this study does not imply that there is an increased risk to humans of lymphoma induced by mobile phone exposure. It may indicate however that in individuals genetically predisposed to certain forms of cancer, the long term intermittent exposure to RF such as that used in mobile phone technology may be an important environmental stimulus in the induction of malignancy, by an as yet unknown mechanism.

Whilst it is true that there may be a difference between mice and humans in the way they absorb the radiation, this study cannot be dismissed in terms of "it utilised mice therefore it is not relevant to humans". In some cases it is true that mice represent an entirely different biological system to humans, whereas in other cases they are an excellent surrogate for human experiments. In support of the latter cases it should be noted that Australia's 1998 winner of the Nobel Prize in Medicine, Prof. Peter Doherty, was awarded the Nobel prize for his work in the immune system using mice. His findings are directly applicable to human biology.

D. Experiments in humans

A recent study in humans looked at patterns of brain waves of people using a mobile phone operating at 902MHz whilst performing a memory task, and comparing the results to no mobile phone use. They concluded that "the exposure of EMF does not alter the resting EEG *per se* but modifies the brain responses significantly during a memory task" (Krause CM et al, 2000. 'Effects of electromagnetic field emitted by cellular phones on the EEG during a memory task.' Cognitive Neuroscience 11: 761-764). They concluded that GSM phones have effects on brain electric oscillations in the 4-12 Hz frequency band range particular during memory retrieval processing. The authors propose that the mechanism my be via 'mild temperature changes' in the cortex, and were unable to comment on long-term effects of mobile phone use on cognition. This is not the only study to have shown such effects, and as such it seems that there is a strong likelihood of an effect on neurological processing. This has implications throughout the community, and in particular calls into question the use of mobile phones by children.

Conclusion

Each of these four papers provides an important insight into our thinking on this issue. We can conclude:

0. That the mechanism of biological (and therefore physiological) effect can be explained in terms of orthodox physical and biological data.
0. That the mechanism rules out a simple 'dose-response' curve as the appropriate measure to validate research reports.
0. That the Australian and International Standards do not cope with the reported effects at SARs of 0.001 W/kg, nor with the reported cognitive effects reported for mobile phone users.
0. That the data provides evidence of effects at the cellular, organism, animal and human level of exposures conducted at mobile phone relevant frequency and power.

What is Needed

With one billion mobile phone users expected worldwide by 2005, the possibility that the technology may cause adverse physiological effects cannot be taken lightly, particularly in light of the findings in the above research papers, and other references contained therein.

Clearly, these issues show the need to conduct further research to determine the threshold value for biological effects of mobile phone emissions, and what those effects might meann for human health.

The Australian Standards need to be re-defined, based on these and other research findings.

The manufacturers need to be pushed to publish the SAR's of their phones so that market pull can drive the production of mobile phone technology which minimises or preferably eliminates electromagnetic radiation emission to the brain.

Research Program
Drs Holt and French

The Director of the Centre for Immunology and Cancer Research in St Vincent's Hospital, Sydney, New South Wales, Australia, is Dr Peter French. It is his opinion that photographic evidence is categoric proof that any frequency microwaves between 825 and 875 MHz will permanently damage human glioma cells. The points of importance are as follows:

1). The exposure required is approximately 100 watt minutes per day for a minimum of three days. Trial experiments have utilised 1 watt for 100 minutes daily to a maximum of 10 watts for 10 minutes daily. The effects are identical. These photographs show the effects after five days of such irradiation. More extensive radiations have not been carried out because there is an increased death rate of the cell kill in its culture.

2). Whilst 10 watts may appear excessive for the output from a single mobile phone, the total load of electromagnetic radiation in the brain and surrounding tissue is not only the single mobile phone but also the combined radiowave pollution from the transmitters servicing the mobile phones, every other mobile phone in the vicinity, any other radiowave emission between these frequency limits that are present as stray radiation in the individual concerned. Unless all these have been accurately measured it could not be denied that 1 watt from a mobile phone plus the equivalent of 9 watts spread over 825-875 MHz or a greater range would not be equally as effective in permanently damaging the glioma cell.

3). These damaged cells have been cultured through six generations in 30 experiments, without further exposure to any electromagnetic radiation. The damage was inherited completely unchanged. This is categoric proof that the change in the cell has been fundamental and one from which it cannot recover. The definition of cancer as a damaged cell which has not died as a result of the damage applies to these glioma cells and further damage is created by electromagnetic radiation.

4). Every single experiment showed damage to the cell.

5). The two markers used to reveal the damage were the proteins actin and vimentin.

Actin is the protein responsible for the skeleton inside the cell. Vimentin is a lesser protein responsible for skeletal function in a cell and both are concerned with the minute fibres which control the cell's size and shape. After exposure to a minimum of 100 watt minutes per day for a minimum of three days the actin was reduced to approximately one third to one sixth of its pre-irradiation level. Further culture maintained this same reduction proportion in actin content.

Vimentin production was less affected than the actin production and reduction varied between 20% and 50% after irradiation. Vimentin was more resistant to electromagnetic radiation at these frequencies than actin. The vimentin treated cells in the photographs reveal greater variability in the reduction of the inheritable levels of vimentin protein compared with the actin.

6). Comparison of the untreated with the post-treatment actin and vimentin staining reveals major changes in the organisation of these two proteins as a result of irradiation.

7). A clinical observation concerns Mrs F G A, DOB - 23 April 1939, with a grade three malignant primary brain cancer. She was exposed to three minutes of 825 MHz electromagnetic radiation with a measured output of 46.5 watts on the antenna and a reflected power of 1.4 watts. A marked sudden increase in the rate of growth of her glioma occurred and this patient had to be hospitalised 10 hours later. This lady had not had an epileptic fit for several weeks but within a few hours of this exposure she had multiple epileptic fits, nausea and vomiting with sudden increase in intracranial pressure which was only relieved by 4 mg of Dexamethasone intramuscularly followed by 2 mg intramuscularly every four hours for four doses. I personally had never seen such a dramatic deterioration in a patient in a few hours, ? as a result of this exposure.

The immediate situation was corrected by adding my conventional therapy after the 825/875 MHz exposure. 10 days later she started to improve and within a few days had dramatic improvement in her paralysis, resulting in resumption of walking and recovery of her paralysed left forearm and hand.

My comment on this is that I will never again expose anybody with any malignancy to this frequency Microwaves of any intensity because of its possible deleterious effect on cancer. In my opinion it would provide an excellent method of reducing the life expectancy of anybody with cancer.

Measurements showed that when one antenna is radiating 50 watts into free space the reflected power is 0.1 watt. When this antenna is placed 5 cm from the sacral bone of Mrs F G A reflected power rises to 0.6 watts but when the same antenna is placed over the glioma in the skull the antenna is de-tuned so that it will only emit 46.5 watts (with all controls unchanged) and the reflected power is 1.4 watts. This proves that the electrical characteristics of a glioma are different from normal tissue, thus confirming Professor Joines' work in the 1970-1980's.

MICROWAVE RESEARCH PROJECT.
Summary Of Research Findings To Date

Aim.
To determine whether irradiation of glioma cells with microwave radiation at either 835MHz or 434MHz could induce structural or proliferation changes.

Methods.
A microwave generator and two antennae tuned to the two frequencies were supplied by Dr John Holt.
A172 cells (human glioma cell line) cultured in 25cm^2 flasks are placed inside the antennae and are irradiated at different power levels for different periods of time. Cells were then analysed against unirradiated controls for cytoskeletal alterations and for alterations in cell growth rates.

The following patterns of irradiation were carried out:

835 MHz

Series 1.

Thurs	5W, 5′
Friday	5W, 10′
	10W, 6′
Sat	10W, 5′
Mon	10W, 10′
	1W, 5′
Tue	2W, 6′
	6W, 10′
	5W, 5′
Wed	5W, 10′
	10W, 6′
Thur	10W, 5′

Series 2.

Fri	10W, 10′
Sat	10W, 5′
	10W, 6′
	10W, 6′
Mon	10W, 10′
Tue	10W, 7′
	2W, 20′
	5W, 15′
Wed	6W, 10′
	10W, 15′
Thur	5W, 20′

Series 3.

Wed	10W, 15′
Thur	5W, 20′
Fri	10W, 10′
Sat	10W, 10′
Mon	10W, 10′
Tue	10W, 10′

434 MHz

10W, 10′, once only.

Cells were compared with non-irradiated controls for cell growth and cytoskeletal structural changes by immunofluorescence using monoclonal antibodies to actin, tubulin, vimentin, GFAP and neurofilaments. In addition, cells were extracted for cytoskeletal and cytoplasmic fractions and electrophoresed on polyacrylamide gels.

Results

1. Proliferation.

No differences were detected in rates of proliferation between irradiated and non-irradiated cells (Fig. 1). In one experiment, which was conducted over a period of days, the more irradiation the less proliferation occurred, but the decrease was not significant (Fig. 2).

Fig. 1

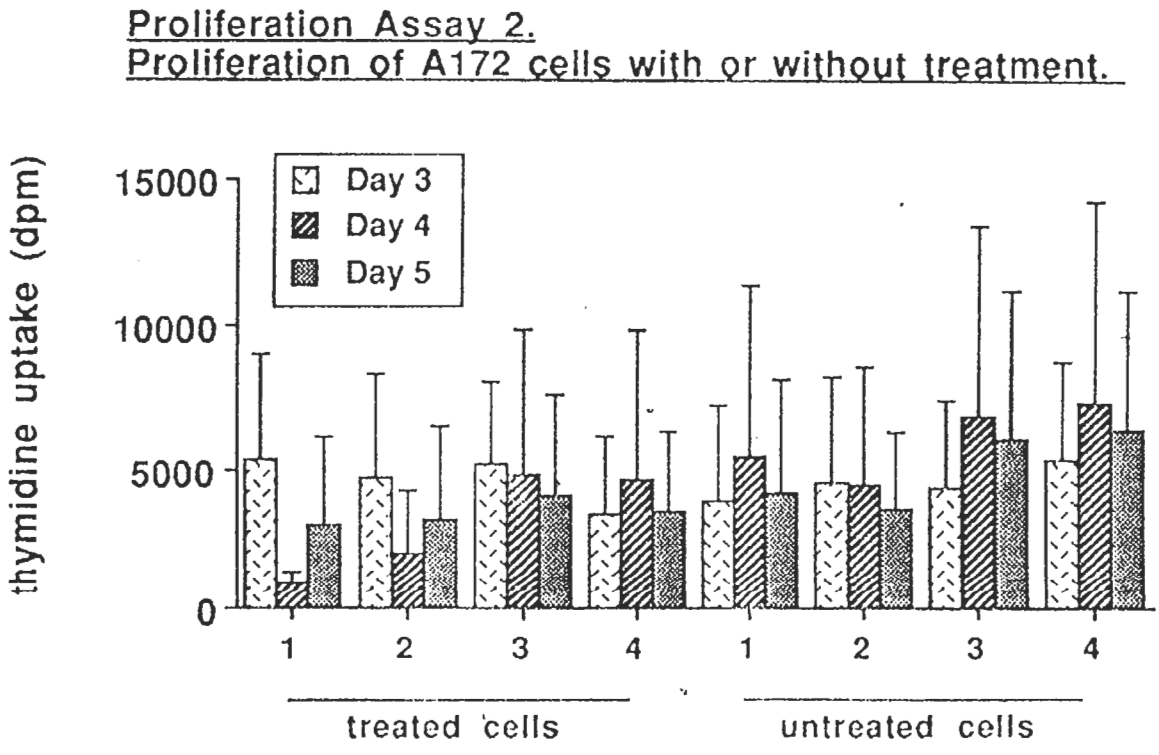
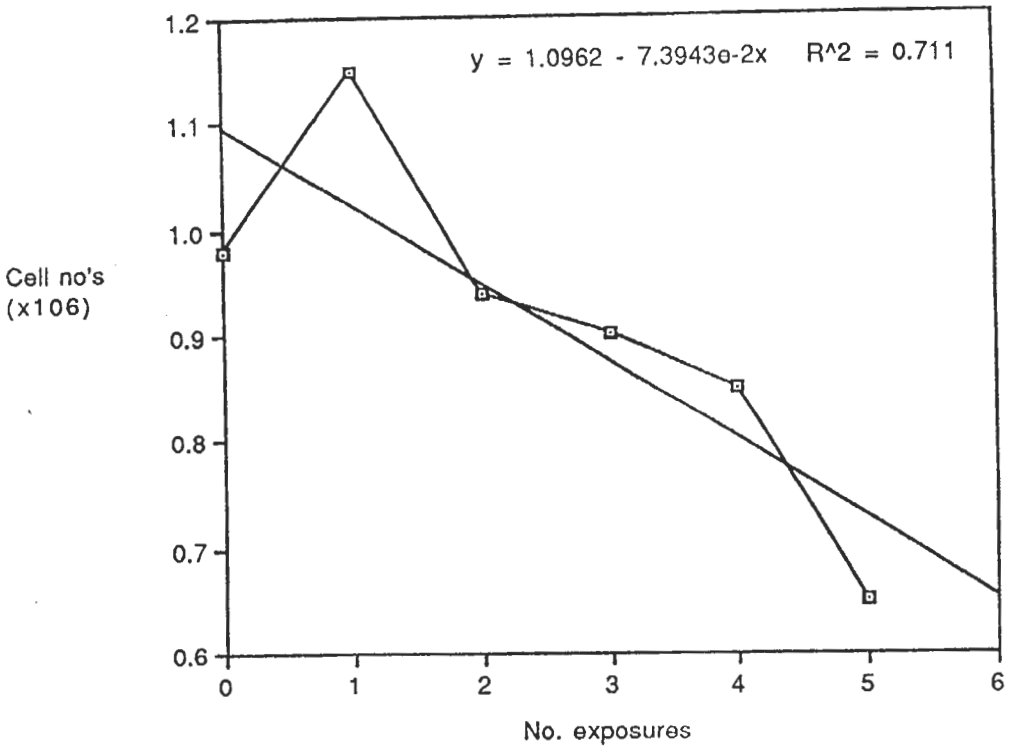


Fig. 2
Result of multiple exposure of A172 cells to microwaves at 833, 10 W for 10 minutes, once every 24 hours.

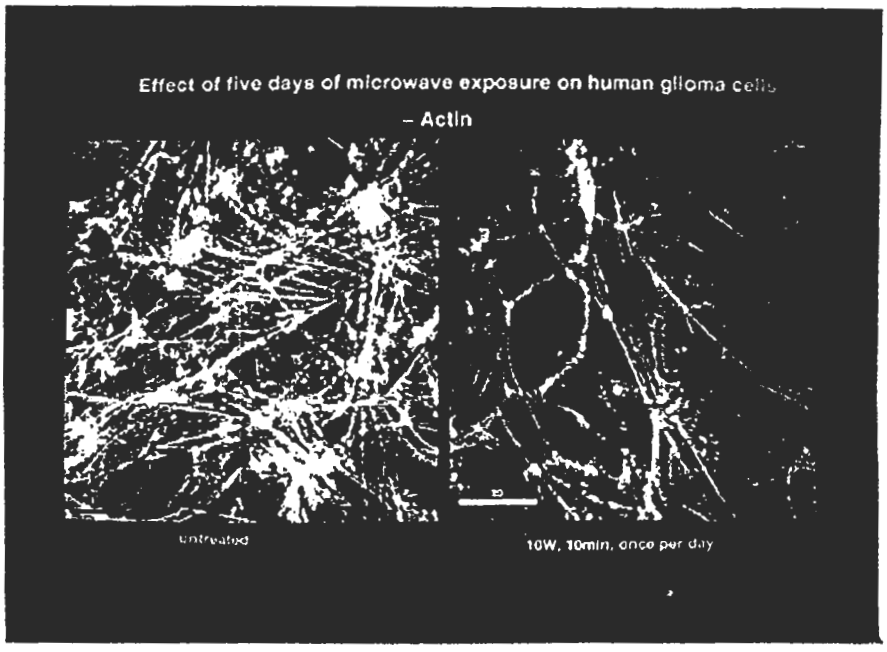


2. Cytoskeletal Proteins

Immunofluorescence

No effect was seen on microtubules, intermediate filaments, or with distribution of GFAP. With actin microfilaments, there were detectable and consistent differences in irradiated cells. In these cells, the amount of actin in filamentous arrangements was significantly decreased (Fig. 3). When the cells treated with 833MHz were passaged, this decrease in actin was still present (Fig. 4).

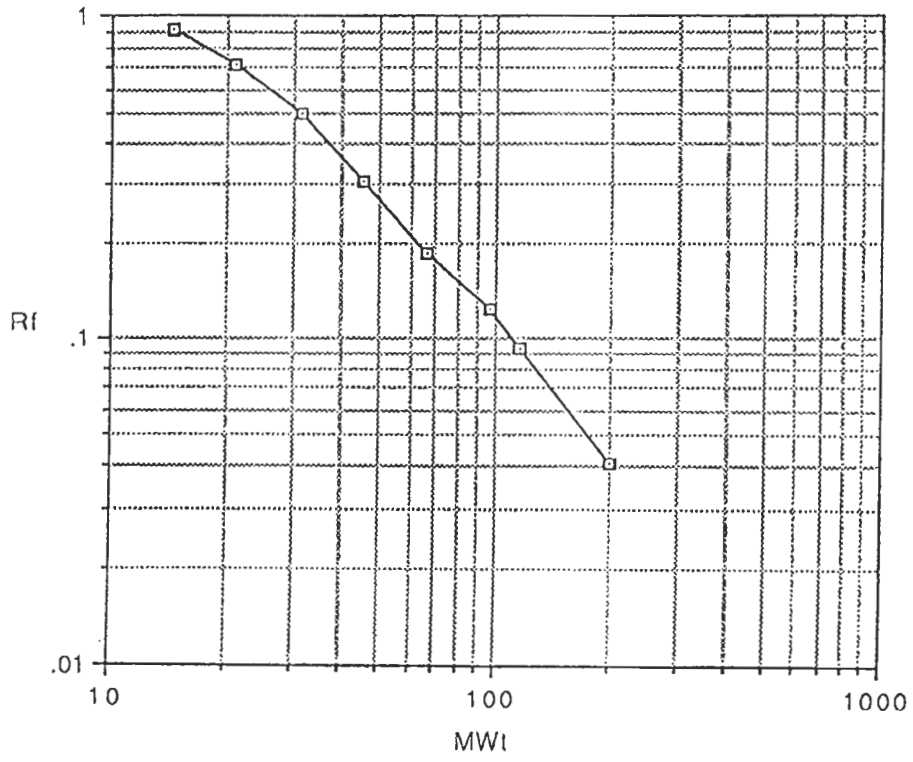
Fig. 3



With 434 MHz, the effect of a single irradiation was to decrease the number of actin microfilaments. However, the effect was reversible, so that by 30 min after irradiation, the actin was similar to controls (Fig. 5). Longer experiments at this frequency have not yet been carried out.

SDS-Polyacrylamide Gel Electrophoresis
From three samples of cells irradiated and extracted for cytoskeletal proteins, the expression of one protein of molecular weight 65kDa was greatly increased in two of the samples in comparison to untreated cells. This protein remains to be characterised.

Standard curve for SDS-PAGE of 833MHz irradiated cells, November 1994.



Conclusion and Future Experiments.
In line with some previous reports, microwave irradiation of cells alone appears to have no effect on rate of proliferation. However, previous reports have indicated that irradiated cells have an increased sensitivity to PMA, and that this second agent can result in greatly enhanced proliferation over non-irradiated cells. This is obviously worth investigating in these cells.

Secondly, it appears that irradiation at both frequencies results in an alteration of the actin cytoskeleton, which may be reversible after one treatment, but which appears to persist through culture after multiple exposures. This is an intriguing finding.

Thirdly, a cytoskeletal protein of approx. 65kDa appears to be upregulated following multiple exposures. This protein may be responsible for the actin effect. It remains to attempt to characterise and identify this protein.

Fourthly, some genetic experiments on multiply exposed cells would be appropriate - to be discussed.

I am enclosing some photos of the latest work. Things have gone a bit more slowly than I had hoped due to contamination problems in one of the cell lines. Nevertheless, some very interesting results have emerged.

The photos show that an irradiation of 10W for 10 min is sufficient to redeuce the numeber and density of actin microfilaments, as I showed previously, and that this change persists through subculture! This means that the cells are irreversibly affected! There is no known mechanism to explain this. I am continuing to expand the experiments, and will keep you informed of results as they come up.

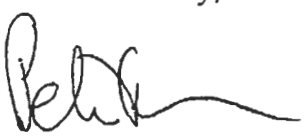
Obviously, where we have seen effects, Melissa will follow up next with protein and mRNA characterisation.

I believe that the project has reached a very exciting stage, and should lead to a significant scientific publication(s).

Melissa will also continue with the HIV work, taking into account the details in your last letter.

Please contact me should you require any further details or clarification of any matters in the report.

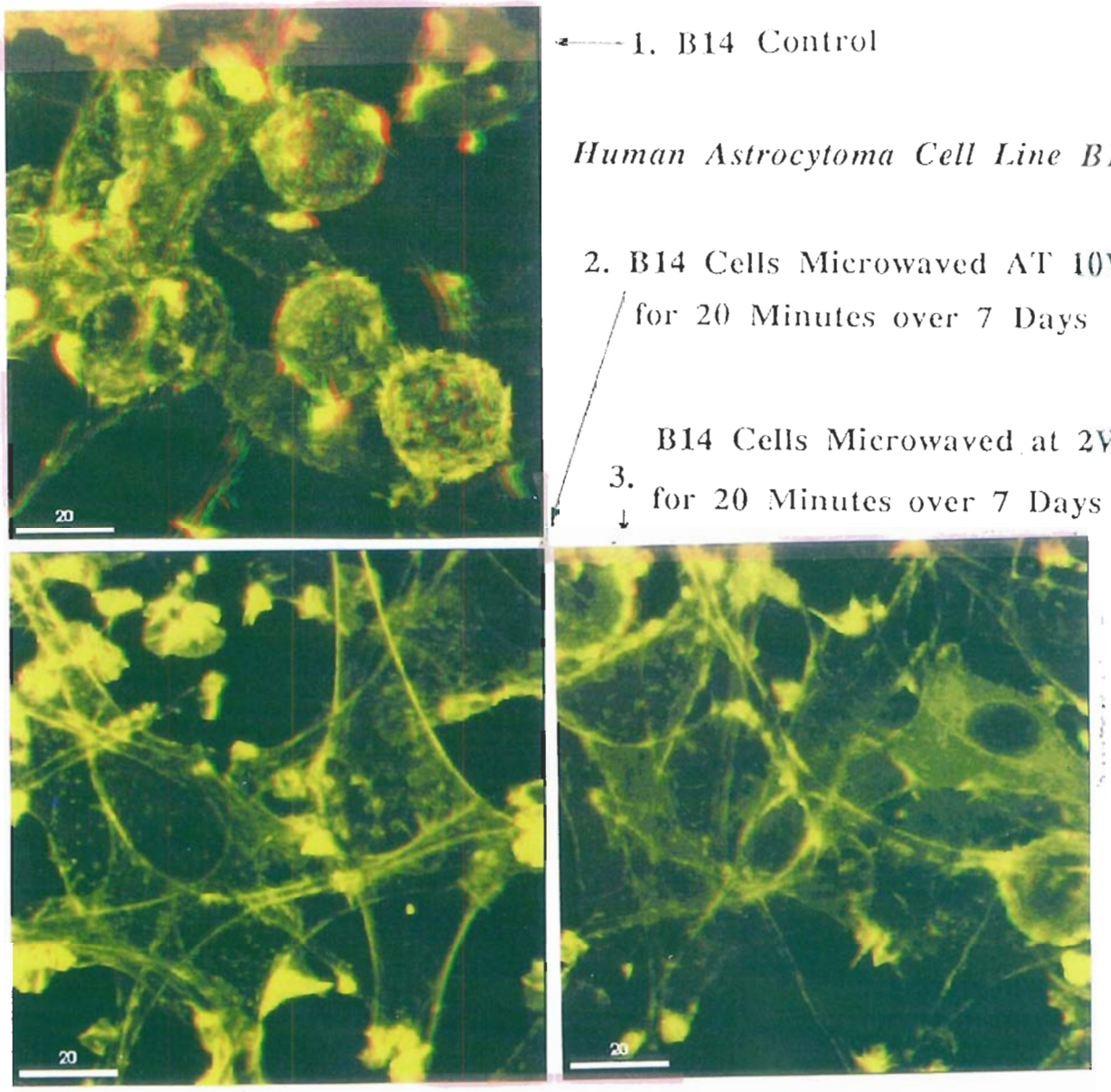
Yours sincerely,



Dr Peter French,
Manager,
Centre for Immunology

Cellular Phone Frequencies

Sheet 1 - B14 Glial Cells
830 MHz to 860 MHz Radiation



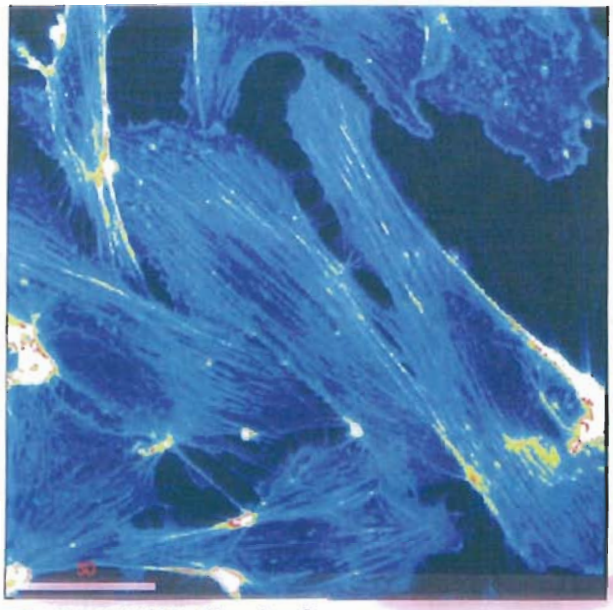
1. Control cells. This is the typical rounded ball like appearance.

2. B14 cells within 10 cm of a 10 watt antenna radiating for 20 minutes a day for seven consecutive days. Flattened appearance of the cells with gross distortion of the physical appearance into a fibrous network.

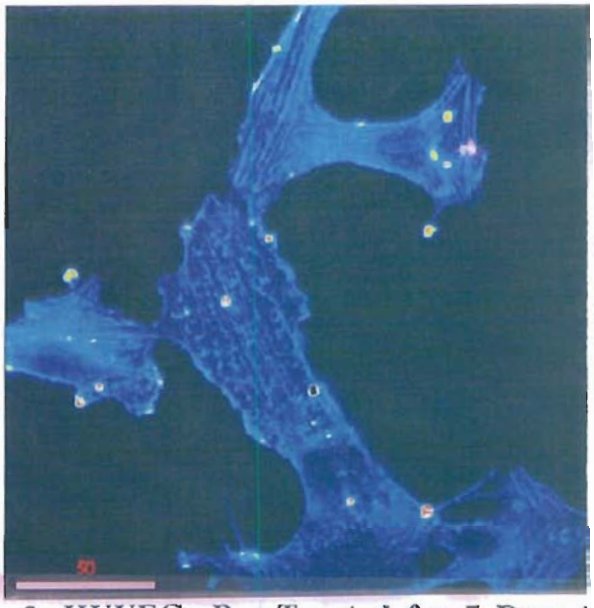
3. B14 cells microwaved within 10 cm of an antenna radiating two watts 20 minutes a day for seven days. In a few cells the rounded outline is preserved but the cytoskeletal protein in the centre of the spherical cell has disappeared. Dispersion of the protein into long strands is more obvious and there is a greater quantatative loss of actin than was seen in photograph two.

CELLULAR PHONE FREQUENCIES 1800 - 1860 mHz
Human Umbilical Vein Endothelial Cells (HUVECS)

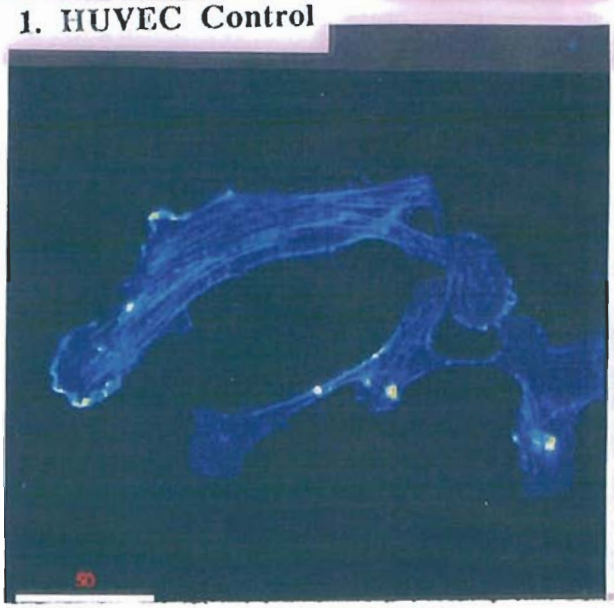
Sheet 2 - HUVECS



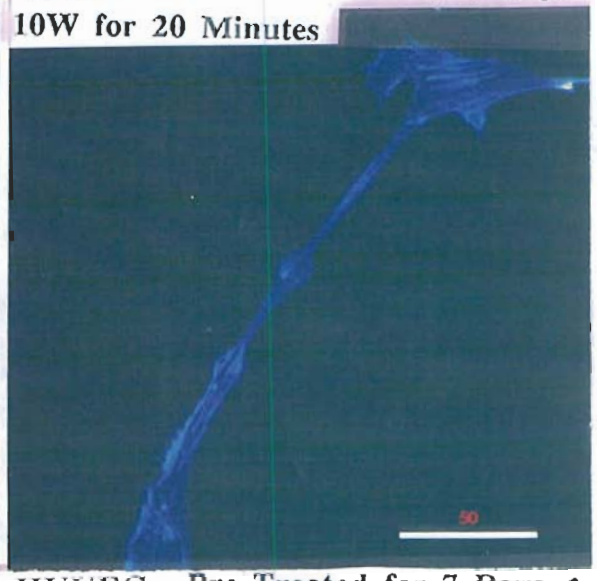
1. HUVEC Control



2. HUVECs Pre Treated for 7 Days 10W for 20 Minutes



UVECs Microwaved at 10W for 20 Minutes for 14 Days



4. HUVECs Pre Treated for 7 Days 5 Microwaves at 2W for 20 Minutes

1. HUVEC control cells unirradiated.

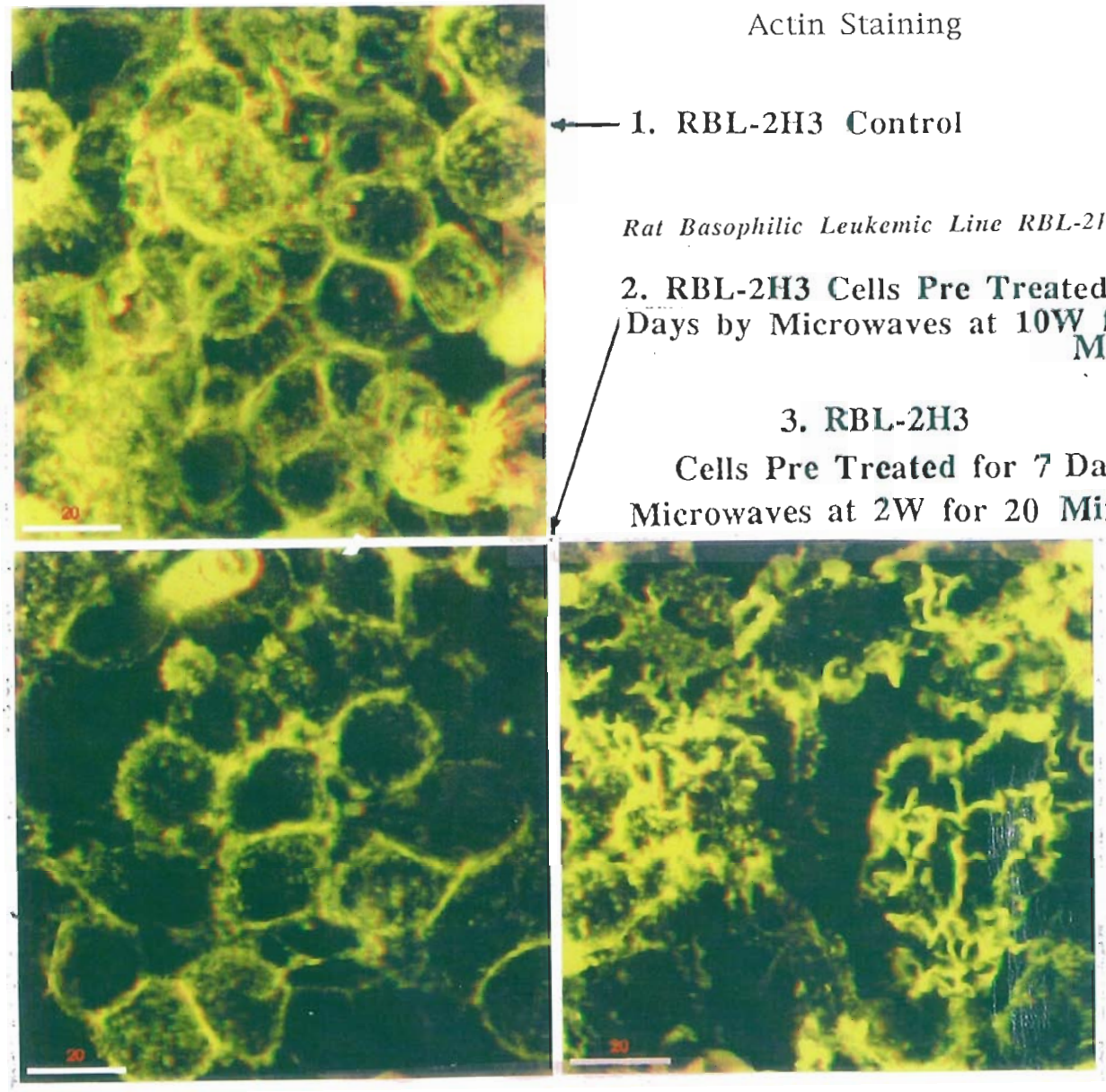
2. Filaments of actin are quantitatively reduced in HEVECS treated for 20 minutes daily within 10 cm of an antenna emitting 10 watts for seven days. Similar results were obtained using three irradiation periods of 20 minutes per day.

3. Little change compared with photograph two. There is a further reduction in the amount of actin cytoskeletal protein present.

4. Reduction of the antenna radiating power to two watts maintaining otherwise identical physical relationships to the cell culture shows a marked difference from the control cells. Irradiation for seven days produces cells which form tubules.

Sheet 3 - RBL-2H3
Actin Staining

Cellular Phone Frequencies
830 - 860 mHz



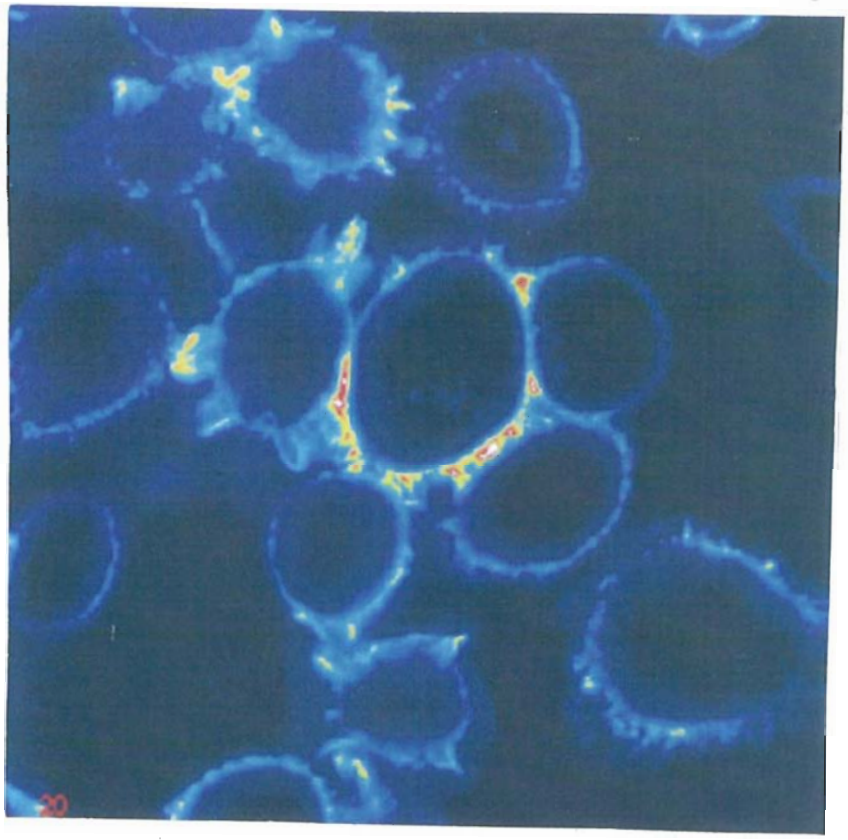
1. Control cells.

2. Irradiation at 10 watts daily for seven days.

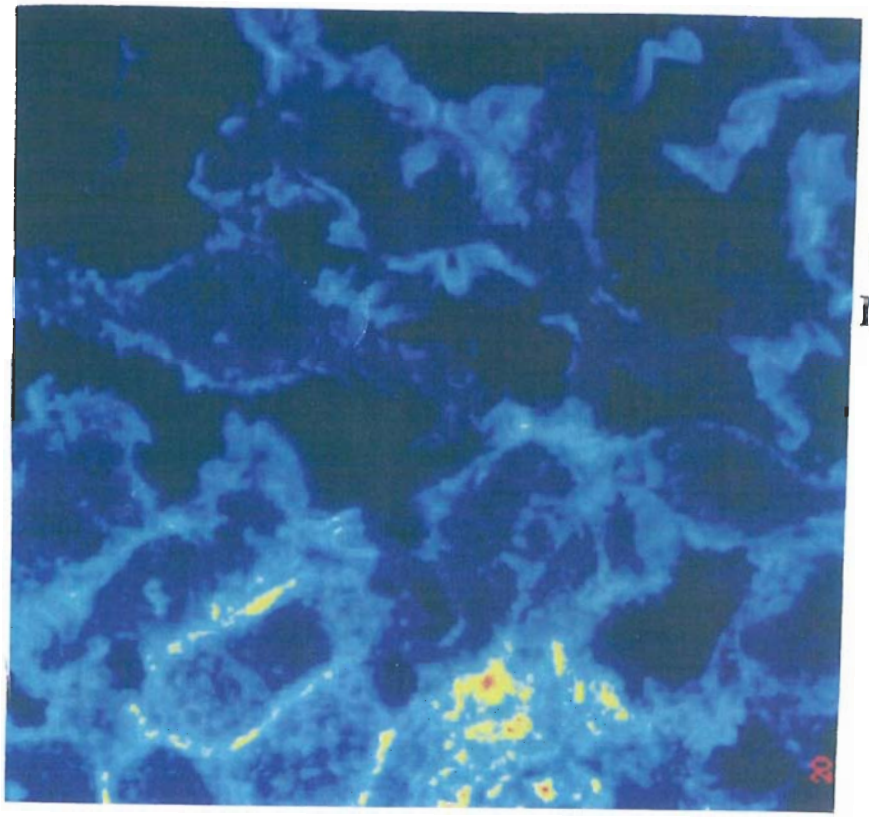
3. Irradiation at 2 watts daily for seven days. There are slight differences in the surface irregularities of the cells treated by the high dose microwaves. The appearance of those microwaved at 2 watts for seven or 14 days shows marked differences from the control cells. They take on a cabbage leaf appearance characteristic of activated RBL cells. These effects are maintained after treatment has stopped for seven days and on further culture of the cells this effect is continued. This series is stained for the cytoskeletal protein actin.

CELLULAR PHONE FREQUENCIES 1800 - 1860 mHz

Sheet 4 - Vimentin Staining of Rat Basophilic Leukaemic Line RBL-2H3 (identical to previous photographic sheet number 3)



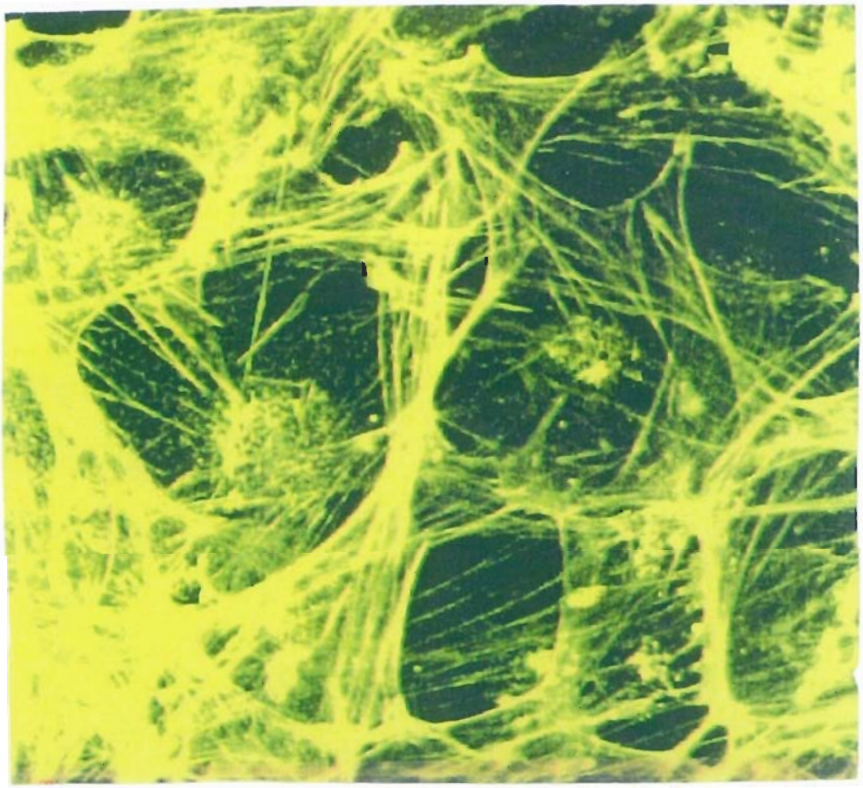
RBL-2H3 Cells Microwaved at 2W for 20 Minutes for 7 Days



RBL-2H3 Cells Microwaved at 2W for 20 Minutes for 14 Days

The cytoskeletal protein vimentin is similarly permanently altered as is actin. Quantitatively the reduction in protein content of vimentin protein is approximately 20%. The actin reduction in the previous group of cells was approximately 40% to 50%.

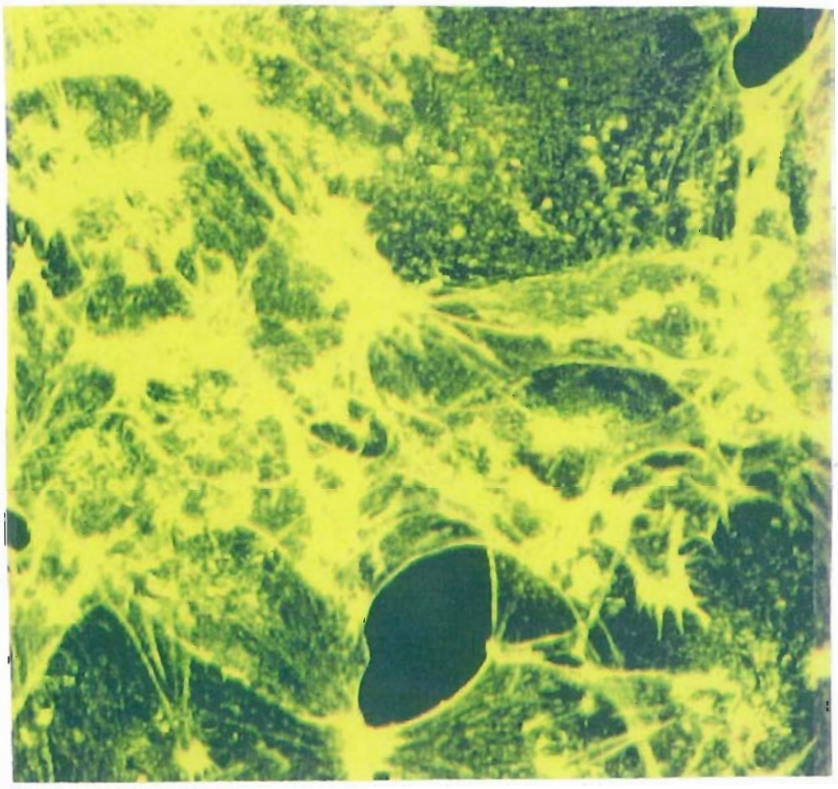
Sheet 5 - Human Glioblastoma Cell Lines A172
Stained for actin cytoskeletal protein



1. Immunofluorescence.

1. Untreated cells: actin filaments are prominent, forming cables.

Cellular Phone Frequencies
830 - 860 mHz

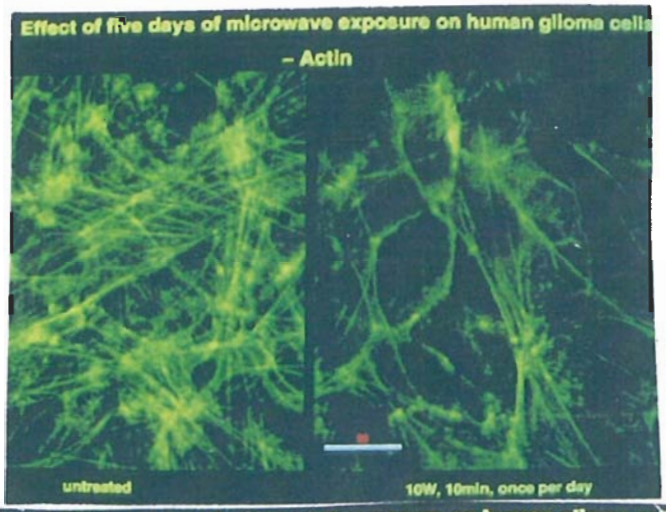


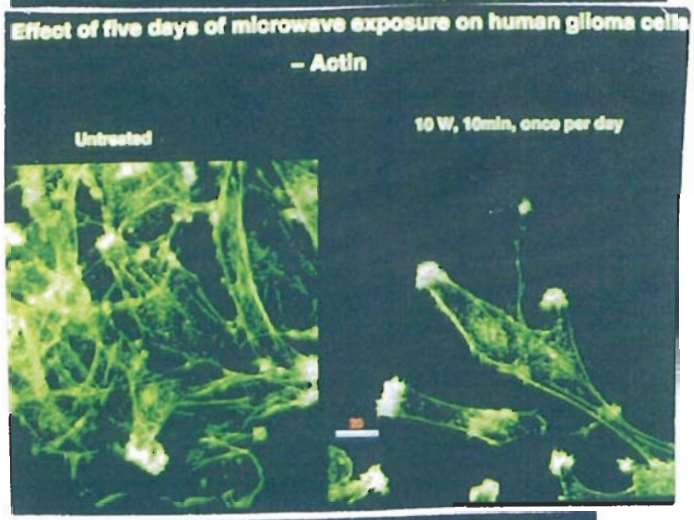
2. 835 MHz treated 10 minutes at 2 watts per day x 5 days. Actin filaments reduced. No recovery after 6+ generations.

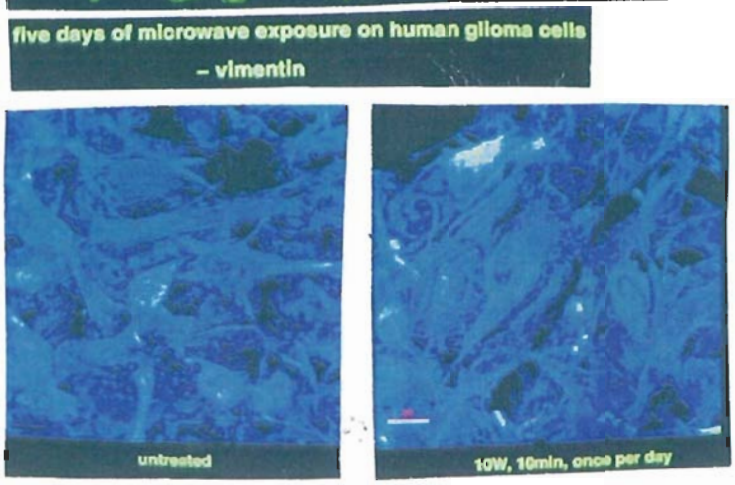
2. The actin microfilaments were detectable with consistent differences in the irradiated cells. Significant decrease of actin filaments is demonstrated (40% to 45% quantatative loss) when these cells were passaged no recovery occurred after six generations. Chromosomal and nuclear study showed no evidence of abnormality. The change due to 835 MHz irradiation increases with reduction in dose from 10 to 2 watts per day. The effect is confined to the cytoskeleton and there is no change in the DNA RNA structure of the cell. Thirdly, a cytoskeletal protein of approximately 65 kDa appears to be upregulated following multiple exposures. This protein may be responsible for the actin effect but it remains to be characterised and identified together with further genetic experiments.

Sheet 6 - Actin and Vimentin Staining of Human Glioblastoma Cell Lines U118MG

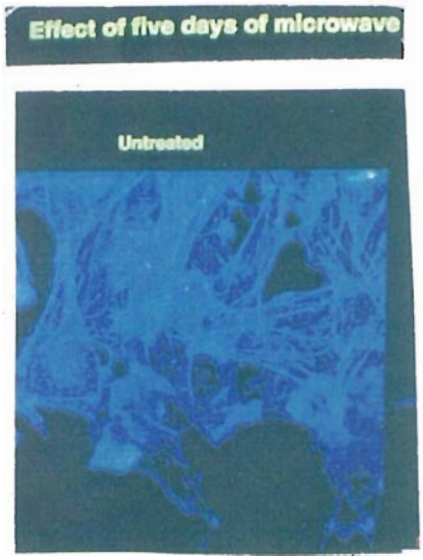
Stained for actin (left hand photographs) and vimentin (right hand photographs). Cells radiated at 835 MHz and placed within 10 cm of a transmitting antenna. Quantitative estimations of actin and vimentin reduction at the termination of the radiation once daily for five days. The actin reduction is approximately 60%, the vimentin reduction approximately 25%. Further passage of these cells for six to 10 generations failed to show recovery of the damage induced by these microwaves.

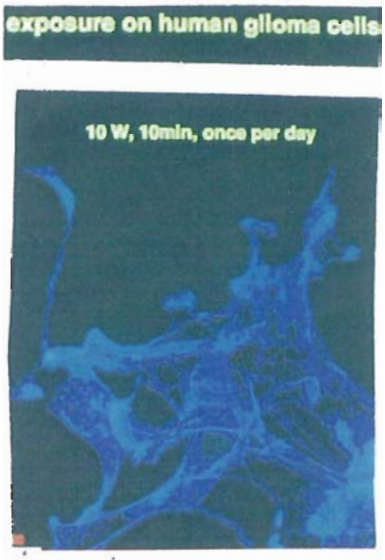






Cellular Phone Frequencies
830 - 860 mHz





After Mastectomy/X-ray Therapy Treatment for Swollen Arms:

The Holt Syphon Operation

Radical breast cancer surgery which completely clears the axillary lymph nodes is responsible for approximately 15% of the swollen arms seen clinically. Dr Norman Mackay (201, 202) used subcutaneous injections of radioactive phosphorous colloid into various sites in the pre and post operative normal size and swollen arms. He showed that approximately 20% of patients had areas of lymphatic drainage which passed through several nodes in the axilla but if those nodes were removed there was very little collateral circulation of lymph fluid to the adjacent lymphatic node territories.

Patients who had radical surgery with removal of most or all of the axillary lymphatic nodes who also had post operative radiotherapy that affected and partly scarred the local lymphatic vessels often created an oedematous (swollen) arm in which no collateral circulation of the lymph could be discovered. His excellent studies 50 years ago on this, which had been freely publicised within the Royal Marsden Hospital, were never all published due to his untimely death in a traffic accident.

The operations mentioned here were based on my premise that from whatever cause, surgery and/or x-ray therapy, the problem was draining the lymph fluid away from the swollen arm. The obvious method is to create a syphon from the dorsum of the wrist, from the upper part of the forearm and from the mid upper arm by implanting tubes and draining them into the subcutaneous tissue of the posterior thigh below the buttock. The illustrations show the sites which I adopted. Three long trocars and canulae with five millimetre inside diameter of one metre, 80 cm and 60 cm were specially made for the purpose and 5 mm external diameter silicone tube (trade name silastic tubing) was also obtained. The patient under anaesthetic was laid face downwards with a bulky pillow under her abdomen so that the skin from the neck to the upper buttocks was almost horizontal. The diagrams indicate the sites of subcutaneous tunnelling using the trocars and canulae followed by the insertion of the silicon tube in the lengths necessary to comply with the diagram.

A preliminary to the operation is to measure from the tip of the seventh cervical vertebra to the tip of the middle finger (D_1) and then mark from the seventh cervical spine that length down to the mid leg position on the operation side (Illustration 134). The silicon tube is always to be tunnelled so that it's inner end is at least 15 cm inferior to that mark (D_1 + 15 cm, arrowed).

A syphon is being created. To use a syphon to extract fluids from containers (petrol for example) or emptying water from otherwise undrainable receptacles, it is absolutely essential that the tube is never kinked so that a lumen is always present throughout its full length and secondly the tube must never have any hole in it.

The principle of the syphon is simple. With the body vertical the syphon will only work to remove the fluid from the arm and hand if there is a difference in the atmospheric pressure between the upper and the lower tube ends. The end of the tube in the buttock/leg MUST always be well below the finger tips of the swollen arm when the body is erect (Illustration 134).

Attention to these details results in satisfactory improvement in every patient treated. A series of 53 patients were treated between 1968 and 1975. One patient had a septic finger which required removal of the tube from the back of her wrist and re-implantation two months later. Every patient had reduction of the oedema of the dorsum of the hand and the fingers. A single tube was inserted to produce the results in Illustrations 135 and 136 which are 20 months apart. Illustration 137 is an example of three tubes being inserted to drain the upper arm, the forearm and hand. The plasters on the skin indicate the multiple sites required to insert

the tubing. She was well satisfied with the result 16 months later (Illustrations 138 and 139). Illustrations 140, 141 and 142 show a single tube insertion for limited oedema of the right upper arm and forearm. Within one week of the tube being inserted the circumference of the maximum oedema reduced from 13 and 3/8th inches to 11 and 5/8th inches or from 34.0 to 29.5 cm. This lady was last seen in 1978 when the telangiectasia of the right upper chest wall revealed malignant recurrence and this was satisfactorily treated with UHF before x-ray therapy. Her forearm diameter was then 26.0 cm.

Various operations have been proposed and published to try and rectify this problem. Handley published regarding the use of silk threads in 1908 (203). It was hoped that the fluid would just track along the silk threads and be absorbed from the swollen arm to the chest wall. Without a closed tube to create a syphon there is no difference in the cellular fluid pressure from any part of the arm to the body and the method is bound to fail.

In 1912 Kondoleon tried a fascial excision in the hope that by removing the scarring of the lymphatics, this would permit free circulation of the fluid. Again, without a method such a syphon of creating a difference in pressure between the upper and lower ends of a closed tube this cannot be of any value. In fact as reported later the scarring was marginally increased and the oedema worsened by the method (204).

The third attempt by Walther was similar to this syphon operation but prevented from having the properties of a syphon simply because holes were cut in the tube to "ensure that the lymphatic fluid had full access to the drainage tube". By creating holes in the tube the syphon effect is zero! This was published in The Bulletin of Academic Medicine of Paris (205) and failed for ignorance in understanding the barometric parameters controlling syphoning.

Such air pressure physics knowledge of the doctors treating this disease was simply not understood by those attempting the task. We all know how to get petrol out of a petrol can into one's car's tank, we may not know why it works (differential hydraulic and atmospheric pressure) but it should have seemed obvious that only a perfect tube so placed that the site of the fluid was physically higher from the centre of gravitation of the earth than the end of the tube from which the fluid has to be drained. The syphon will only operate properly with the body erect when installed correctly.

To me this is tantamount to the physicists who from Marie Curie's day have continued to call x-radiation ionising without understanding that it will only ionise gases but has a specific direct action on sulphur and phosphorous atoms. I can only quote from Norbert Wiener, the atomic scientist, who lectured to me on the use of radioactive isotopes many many years ago when he said:

"We are raising a generation of young men who will not look at any scientific project which does not have millions of dollars invested in it... We are for the first time finding a scientific career well paid and attractive to a large number of our best young go-getters. The trouble is that scientific work of the first quality is seldom done by the go-getters, and that the dilution of the intellectual milieu makes it progressively harder for the individual worker with any ideas to get a hearing... The degradation of the position of the scientist as an independent worker and thinker to that of a morally irresponsible stooge in a science-factory has proceeded even more rapidly and devastatingly than I had expected." (206).

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203. Handley R. Post mastectomy swollen arm treatment. The Lancet 1908, 1: 785.

204. Kondoleon E. Fascial excision for chronic limb oedema. Munich Med Weekly 1912, 1: 525 (In German).

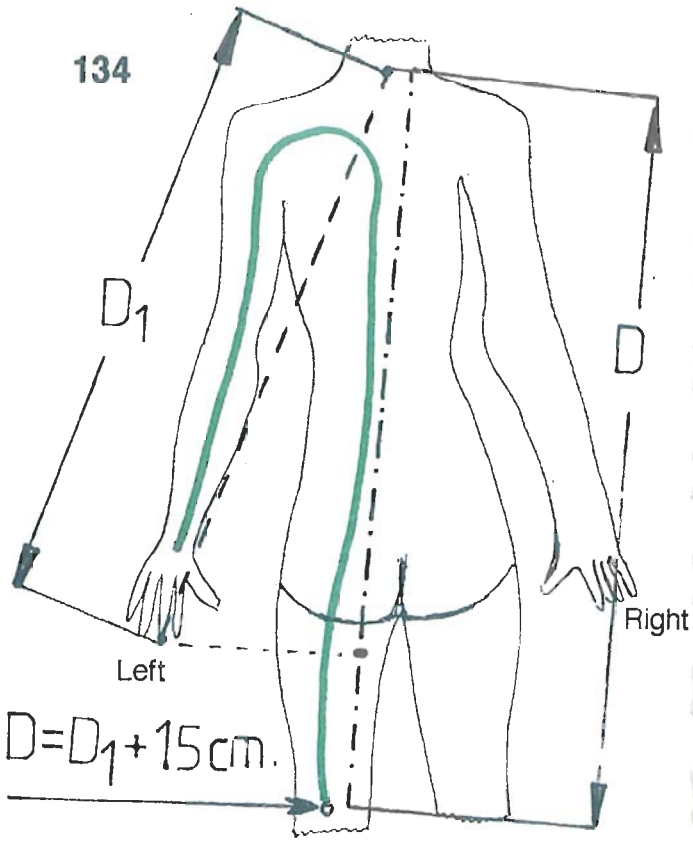
205. Walther L. Letter to the Bulletin Acad Med Paris (1919), 82: 262 (In French).

206. Wiener N. "Scientific" skills of the atomic age. Bulletin Atomic Scientists, 4 November 1948, pp 338-339.

Holt Syphon Operation

Mrs DL. Surgery and x-ray therapy in February 1974. One tube ——— inserted after the photograph taken on 29 August 1974.

134



135 29 August 1974



1 April 1976 136

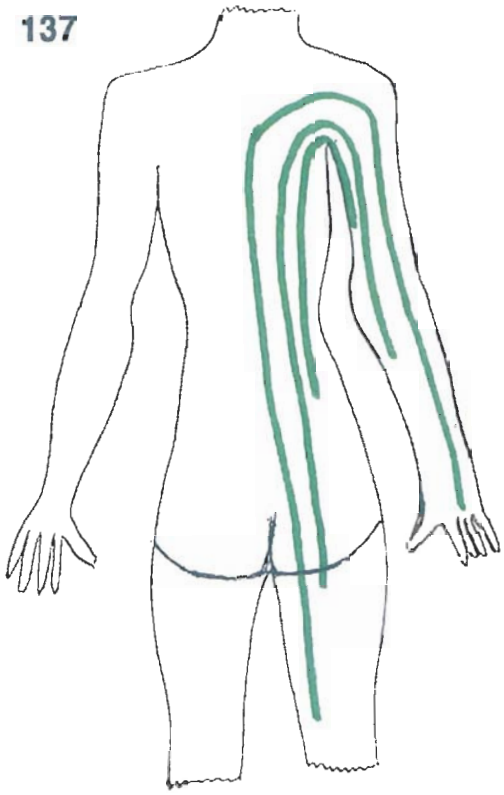


P 156

Holt Syphon Operation

Mrs IJ. Surgery and X-ray Therapy finishing 10 August 1972. Operation - 23 February 1973 - 3 tubes inserted. Multiple puncture holes needed to thread the intact tubes through from arm to thigh.

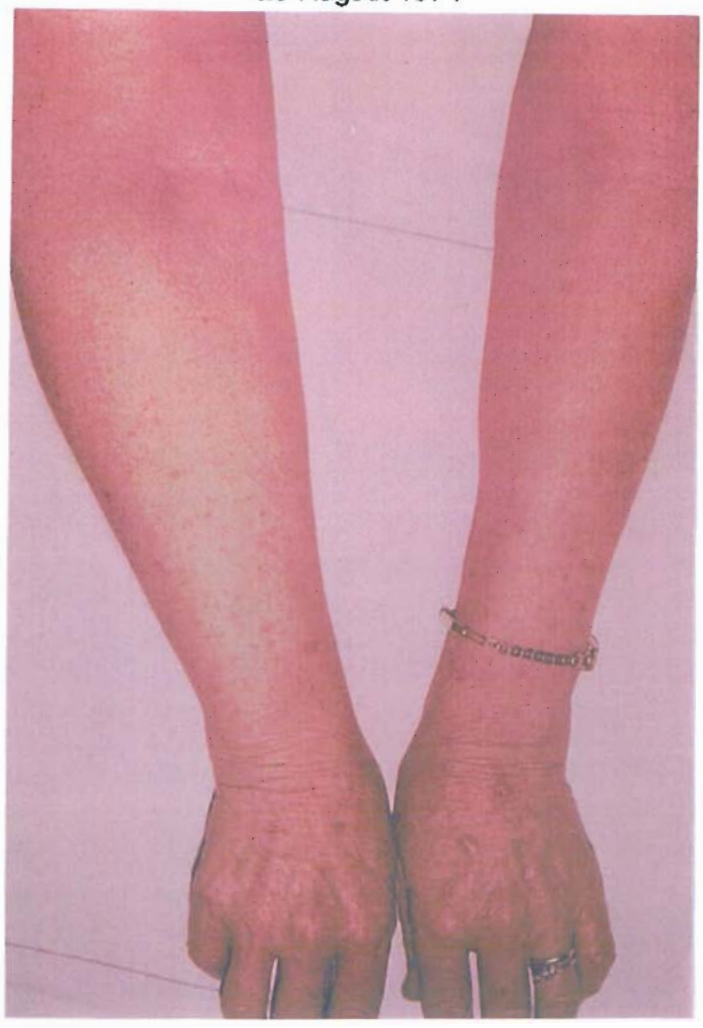
137



138 23 February 1973



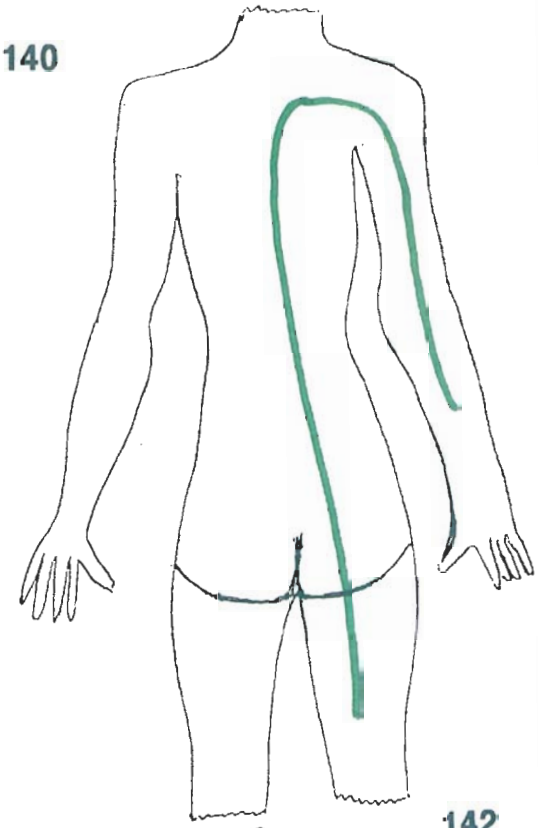
29 August 1974 139



Holt Syphon Operation

Surgery and X-ray Therapy finishing 25 January 1973. Oedema of upper half of limb only. 1 tube inserted: within a week circumference of forearm reduced from 13 3/8" to 11 5/8", or to 29.5 cm from 34 cm. This slowly reduced to 26.0 cm circumference by 1978.

140



141 23 July 1973



30 July 1973 142



One's brain cells are divided into two distinct categories. Neurones are the ones which provide the long filaments and fibres connecting your brain with the rest of the body through the spinal cord and peripheral nerves. The remainder go under the common title of glial cells. The neurones burn pure oxygen with glucose for all their activities and cannot go cancerous. The glial cells not only have that mechanism but they also incorporate the primitive mechanism of still obtaining energy without oxygen when they burn some of the body's glucose. This then is the key which allows discovery of the differences between normal and cancer cells.

The difference is simply that the cancer cell arises because some damage has prevented oxygen from controlling it. It reverts therefore to a cell which must have been one of our original forebears in the era of anoxia (no oxygen in the atmosphere) and survives as a parasite on our bodies powered by the primitive energy systems which created life billions of years ago.

This work has been completed without any external funding other than from the practice of the author. As a senior member of the Institute of Physics, Dr Jones said in the institute's Bulletin in 1962 "we haven't the money, so we've got to think". As a result from a handful of patients treated with HIV/AIDS one is undoubtedly cured, from two handfuls of patients with mesothelioma several have survived more than five years and are apparently cured. One lady 13 years later has an almost normal x-ray from this otherwise incurable disease using the principles enunciated after using the author's intelligence to find the cause of cancer.

To provide statistics is the current war cry of the pharmaceutical establishment. Statistics are of no value unless you are certain that the method you are testing is better than the method you are testing it against. As Lord Rutherford said "if your experiment needs statistics you ought to have done a better experiment."

I see the current cancer research programs as directionless, colossally expensive, based on genetic structures which stand out because they can be seen by a microscope and ignores the great men of the past. It was Adam Smith in an essay on the principles which lead and direct philosophical inquiries who said "the machines that are first invented to perform any particular movement are always the most complex, and succeeding artists generally discover that with fewer wheels, with fewer principles of motion than had originally been employed, the same effects may be more easily produced. The first philosophical systems are always the most complex." This philosopher wrote that in the mid 18th century.

How can one have any new ideas or fresh outlooks when 90% of all the scientists who have ever lived have still not died? Perhaps Martin Luther had it correct 500 years ago when he said that medicine makes people ill and mathematics makes them sad! The author presents apologies for the mathematics in this book but without Napier and Laird to guide this clinical train of discovery cancer and intelligence would never have been recognised as the siamese twins of life.

Consciousness

This is now easily categorised as the spontaneous recognition of physical and mental identicality between individuals who can understand each other through speech or other communication. It is the rapport between exponentially created mental similarities in physically similar bodies. Growing young new born infants acquire information stored as knowledge in exponential quantities of some form in their glial cells (since glial cells become cancerous they are the only cells in the brain which can contain your intelligence system).

The new born has a consciousness which rivals a speechless animal and has to develop its mind from its own experiences via its sensory organs. Lamarckian evolution has forced human laryngeal development to express knowledge expansion. Lamarckian evolution of information transmitted to a glial cell creates this knowledge. Consciousness automatically develops between identically created individuals (by identical one means both constructed from exponential functions) who can discuss any aspect of themselves and their surroundings.

From mute plants through mute active forms of life to the latest humans, consciousness cannot exist except amongst evolutionarily similar biological forms. There must exist some form of "consciousness" between all similar life forms. For example between plants and other plants, between plants and their pests, otherwise no plant could ever evolve mechanisms of defence as sophisticated as a Venus flytrap. Each animal colony exhibits consciousness when co-operating in hunting such as lions and tigers exhibit. There is a co-operation which must signify consciousness between a flock of eagles or wolves who scavenge the remains.

Consciousness in humans exists when mere animal interactions cease and glial cell knowledge provides the ability to discuss items with language, rather than a grunt of a pig or a dog's bark. This development of consciousness starts with baby talk and develops rapidly over the early years. Intellect is therefore programmed very early and parallels the development of speech.

Old age, when Alzheimer's disease has perverted the exponential creation of knowledge to a degeneration provides the classic example of the destruction of consciousness yet leaving a whole physically perfect individual. Similar calamities occur in loss of brain in strokes, cancers and other diseases or poisoning with methionine sulphoximine from spoilt wheat grain.

Consciousness between individuals will be vitally dependent upon the excellence of the communicating medium of speech. Every word must have a fixed meaning otherwise the whole notion of consciousness may be imperfect. Consciousness undoubtedly exists between every individual in any species of life on earth but we are the fortunate ones in whom evolution of our physical voice and hearing systems has allowed our glial cells to mature into an intelligent ape where discussion supersedes violence.

Immanuel Kant (1724-1804) a mathematician with biological knowledge after Napier's style described life as "purposiveness without a controlling end". He then said, with apologies for a poor translation, "concepts without factual content are empty: sense data without concepts are blind; the understanding cannot see. The senses cannot think. Only with union of both can knowledge be produced."

Summary

1. The energy source for life and cancer is created by anaerobic glycolysis interchanging oxidised and reduced glutathione, a system denoted ER_{ex}. Because ER_{ex} uses electrical energy to assume exponential function it is better signified by ER_{ex} than R_{ex}. Cells have two or more of these systems. In cancer only two are active at any one time. ER_{ex} is situated in the extra nuclear components of the cell.

2. X-ray therapy directly targets ER_{ex}. 160 rads will kill an active system, but 1400 rads will not destroy an inactive one. Doses well in excess of six daily doses of 1650 rads or 3 daily doses of 2700 rads are required to kill all inactive ER_{ex} systems in each cell.

3. Between 430 and 440 MHz cancer fluoresces and/or resonates, which interaction can be used for cancer therapy by combining UHF with glucose and sulphur blocking agents. This fluorescence is due to the interconversions of reduced and oxidised glutathione (GSH and GSSG respectively).

4. UHF will activate all the potentially active ER_{ex} systems in the cell for approximately 20 minutes. For obvious reasons therefore UHF must be given before X-ray Therapy if its radiosensitising effects are going to be optimised. If used after X-ray Therapy UHF will synchronise cell activity for 24 to 36 hours and is therefore a radiosensitiser if given on alternate days over several weeks.

5. Two basic methods of treatment of cancer using UHF therefore exist. Either use UHF to activate the ER_{ex} targets and then use uniform X-ray Therapy (160 rads) daily to tolerance or raise the blood concentration of GSSG and/or other disulphides, cystine etc and then irradiate with UHF.

6. In either method it must be recognised that normal cells in which ER_{ex} is active (when it is in permitted activity - supplying energy for mitosis) are also influenced by UHF as is cancer. There are thus two areas of potential danger to normal tissues - overdosage of UHF and the certainty that nuclear poisons, cytotoxics, and all potentially toxic chemicals will have their toxicity seriously enhanced.

7. ER_{ex} is controlled by the Pasteur reaction - a coupling of GSSG to it denoted R_{S1}. This combination permits inactivity of ER_{ex} (which is life itself) when necessary for survival.

8. All reactions added by evolution to control ER_{ex} and R_{S1} can obviously have varying sensitivities to ionising and/or non ionising radiation. A specific interaction between EMR and one such control step could produce a specific type of cancer. This would explain why statistics suggest that acute leukaemia of children may be caused by prior exposure to ionising radiation (eg to foetus).

9. This also explains how thalidomide, by acting on a specific evolutionary step could prevent normal development and may offer a means of restoring growth to a stunted limb. The viraemia of Rubella could act similarly to cause so called "congenital" abnormalities.

10. Because ER_{ex} produces energy exponentially it is superior to every other conventional chemical reaction in the universe, except another "exponential" system.

11. ER_{ex} is therefore endowed with the property of intelligence.

12. Evolution is therefore automatic because ER_{ex} will force it to acquire additional simple reactions to permit its survival in adverse circumstances.

13. Evolution cannot be Darwinian: Lamarchism is correct.

14. Intelligence in the brain must be mediated by an exponential chemical process: ER_{ex} is in glial cells but not in the neurones. The glial cells are the probable site of origin of this activity which produces chemical complexity in exponential proportions to knowledge input.

15. CR_{ex} is a suggested title for this peculiar chemical reaction of exponential increase in complexity. It is impossible to visualise any artificial intelligence machines based solely on non exponential calculations.

16. Alzheimer's disease is the uncontrolled exponential increase in the (non-functioning) chemical products of intelligence. It is the glial cell's chemical "cancer". Obviously the normal supervisory neuronal control of increasing complexity is ineffective for unknown reasons. It appears most probably that Alzheimer's protein "tangles" arise from the glial cells.

17. All Central Nervous System electrical activity is confined to the non neuronal glial cells which alone give rise to "brain" cancer. The action potentials of nerves travel too slowly to provide the observed speeds of brain reactions.

18. The sperm contain ER_{ex}; the ovum does not. The ovum contains all the nucleoli, not the sperm.

19. Life is a phenomenon of the electro-chemical reactions of glutathione which are energised by the anaerobic conversion of D-glucose to L-lactic acid.

20. Prion disease (scrapie in sheep, Kuru, Creutzfeld Jacob disease in humans etc) obeys the mathematics and epidemiology of any infective process and therefore must be based on ER_{ex}.

21. HIV and other exponentially growing (eg multiple sclerosis, scleroderma, ankylosing spondylitis, rheumatoid arthritis etc) infections parasitic in humans which are based on ER_{ex} may be cured by a combination of Glucose/GSSG Blocking Agents and UHF.

**22. Legionnaires disease in not a primary disease of similar category because it does not have the mathematical nature of growth nor obey the epidemiological spread of a transmissible disease. It must be a response to some injury, eg a chemical such as phosgene, complicated by secondary infection.

23. The energy source of cancer is a dynamo and responsible for cancer being a better conductor of electricity than normal tissue. Any radiowave pollution will deposit more energy in the cancer than normal in the ratio of the reciprocals of their respective impedances. If the pollution levels are sufficiently intense the rate of growth of all cancer will be increased by its energy.

24. Every activity created by human intelligence behaves exponentially which unchecked increases exponentially with time.

25. Stable human society can only occur if such exponential growth is deliberately suppressed by humans themselves using complex sophisticated language. In the non speaking world predators, disease, and "natural" factors etc control population sizes. Humans use wars as all or none population control. Such binary mathematics have no real influence on exponential growth and behaviour.

** Refrigerant gases are based on Di-chloro di-fluoromethane. Any electrical sparking (e.g. the fridge motor) generates phosgene from these gases. Legionnaires' MUST be a poisoning, NOT an infection. Hence it is NOT transmittable and is nursed openly. Every case must be due to a faulty (sparky) electric motor in the air conditioner unit.

EPILOGUE

In 1954 I cried "Eureka!" when I learnt about the physics of x-ray therapy. Nineteen years later, on a cold, wet winter's afternoon I cried "Eureka!" when a cancer patient walked in front of the original Tronado machine in Hamburg. Today my search is complete, all that needs to be done is to refine and develop my discoveries in much the same way that the use of penicillin was refined and developed after its discovery.

In 1974, after I'd actually seen the results of using microwaves and confirmed that what I'd yelled "Eureka!" about was real and not just my imagination, I was so confident we would eventually understand and then cure cancer that I published a paper in Australasian Radiology titled "The Cure of Cancer, A Preliminary Hypothesis". That paper brought the wrath of the medical establishment down on my head. Professors of pathology, surgery and medicine, academics and administrators, were all utterly indignant that anyone would or could forecast such possibility.

Time has proven me right and the establishment wrong, and I believe it will do so again. In 1974 I was bold enough to predict a cure for cancer, today I am confident in predicting that we will find a ready cure for HIV and other "viral" diseases using similar blocking agents and microwaves. The method is also adaptable to viruses and possibly other infections and diseases such as malaria and sleeping sickness.

That is part of my reason for writing this book. I am no longer stupid enough to waste my time trying to get medical journals to publish my opinions on HIV and AIDS. I have already seen the level of resistance medical indifference puts up to genuine attempts at changing the status quo for the better ... I have no desire to see it a second time.

HIV, because it grows and spreads exponentially must be a "living" thing and for once we can accept the wisdom of the back-room boffins and call it a virus. HIV patients with Kaposi's sarcoma and other cancers are common. Placed in front of a wave analyser, the spectral pattern generated by passing microwaves through these patients is, in essence, identical to the pattern produced by cancers in non-HIV sufferers. The pattern of HIV sufferers without cancer is, however, the same as non-HIV patients with cancer. In other words HIV is powered by autonomous glutathione cycling in exactly the same way as it does in cancer.

It is my opinion that cytotoxic drugs will have as little effect on HIV as they do on cancer. Vaccines, likewise, will never work on HIV because the collection of amino acids which constitutes the virus is too small to be antigenic. HIV is not a stable virus, it is so small that it is able to alter itself and avoid being easily dealt with. It's not even really a virus at all, it's far too primitive for that, it's more like a throwback to the very start of life. The one target we have to aim at in HIV is autonomous cycling of the chemical forms of glutathione.

Slow viral infections eg Creutzfeld Jacob disease and other related "prion" diseases appear very similar to me and should be treatable in a similar manner.

HIV sufferers, therefore, might persuade the medical profession into using microwaves and glucose blocking agents in the manner that I've suggested. If that happens my prediction of the curability of HIV could prove as accurate as my prediction of the control of cancer has shown itself to be.

Using spectral analysis of 434 MHz reflections from cancer alone, as is practiced in Magnetic Resonance Imaging for diagnosis of some diseases, it should be possible to diagnose cancer in anybody. Only HIV and possibly other "living" infections would confuse this diagnosis. But the diagnosis no longer matters!

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