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CHANGING EPIDEMIOLOGY OF MALIGNANT MELANOMA IN QUEENSLAND

SIR: The doubling of Queensland's melanoma mortality rate has a parallel in the northern hemisphere.¹ It can be shown that a factor which raised the melanoma mortality rate was inactive in those born before 1903 and fully active in those born after 1923.

Joines² shows that the electrical conductivity and the dielectric constant of cancer is always different from normal cells and varies with the frequency of applied electromagnetic radiation. Because all malignant tissue has a better conductivity and a higher dielectric constant than normal tissue, it must selectively absorb more power from stray electromagnetic radiation than the normal tissue does. Therefore, people exposed to stray electromagnetic radiation acquire more energy when carry-

ing a cancer than a normal person would. This energy is fairly selectively localized in the cancer. In my opinion this effect is responsible for increases in mortality from melanoma. Electromagnetic wave pollution commenced in the northern hemisphere in 1899 and was very extensive by 1920.

Dr H. J. Woodliffe and Dr L. Dougan, analyzing the West Australian Cancer Council's statistics, showed a complete change of the patient survival curve which corresponded with the change of the decades 1950–1960 and 1961–1970. Between 1951 and 1959 50% of patients with chronic myeloid leukaemia (CML) survived 55 months.

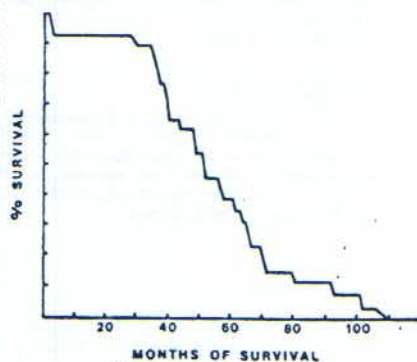


FIGURE 1: Survival in chronic granulocytic leukaemia in W.A. 1951–1959. (Reprinted from Woodliffe and Dougan, "Survival in chronic granulocytic leukaemia in W.A.", address to the Cancer Council of W.A.).

Between 1963 and 1967 50% survived 21 months. Some factor altered the natural history of CML in between 1960 and 1962. The radiotherapist involved was unchanged between 1950 and 1967; while one change of haematologist occurred.

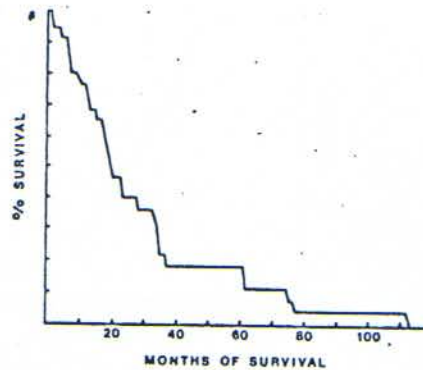


FIGURE 2: Survival in chronic granulocytic leukaemia in W.A. 1964–1967. (Reprinted from Woodliffe and Dougan, "Survival in chronic granulocytic leukaemia in W.A.", address to the Cancer Council of W.A.).

Three highpowered television broadcast stations were commissioned in 1960–1961 in Western Australia and, simultaneously, the international airport was created with its highpowered radio, radar and other communications facilities.

Queensland's malignant melanoma mortality rate appears to be related to similar changes in corresponding years, when their television services and other highpowered radio communication networks were being established.

Joines has shown that at 27 MHz maximum electrical differences may exist between certain cancer and normal tissue. The craze for CB radio, which intensely irradiates its operators, could be responsible for some of the effects described. Possible deleterious effects on tumours of the head and neck in either sex could be explained by the shielding effects of metal panels where the CB radio is in an automobile. The lower incidence in tropical Queensland could be associated with lower stray radiowave pollution energy levels in these areas.

Personal communication facilities at 469 MHz very high frequency could well have greater side effects. Johnson³ confirmed my 1974 observations⁴ that 434 MHz has specific nonthermal effects on cancer.

There is a steady increase in the breast cancer death rate.⁵ This coincides with changes of electromagnetic wave pollution from very high frequency to ultra high frequency transmissions and adds national irradiation from communication satellites. There is no doubt that cancer can thus selectively absorb energy. Electromagnetic radiation permits conversion of carbon dioxide into starches. It is therefore very probable that electromagnetic radiation energy can be utilized by cancer because appropriate levels can stimulate cancer growth rate.⁴

This information was presented to the 1977 International Symposium on the biological effects of electromagnetic waves, organized by the International Union of Radio Science. My paper entitled "Effects of 434 MHz electromagnetic waves on human cancers" pleaded for monitoring radiowave pollution and including it for investigation into its effects upon cancer.

Radiotherapy Centre,
24 Salvado Road,
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JOHN A. G. HOLT.

¹ Elwood, J. M., and Lee, J. A. H., *Seminars on Oncology*, 1975, 12, 149.

² Joines, W. T., Tanabe, E., and Raymond, U., *Proc. I.E.E.E. Southeastern Conference*, April, 1976, 328.

³ Johnson, R., *et alii*, *Amer. Soc. Ther. Radiol.*, 21st annual meeting, October, 1979, Abstract No. 199.

⁴ Holt, J. A. G., *Med. Hypotheses*, 1979, 5: 109.

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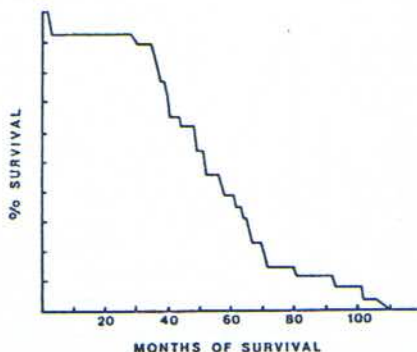


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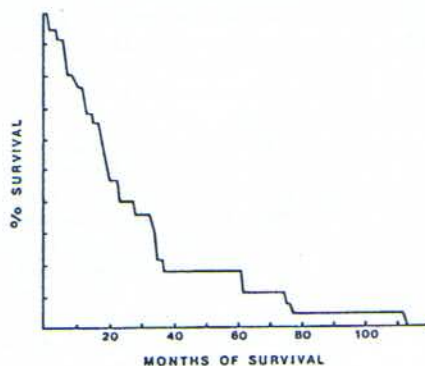


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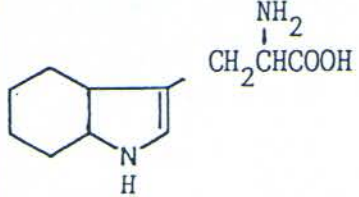
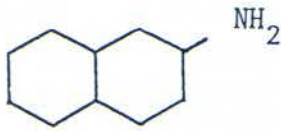
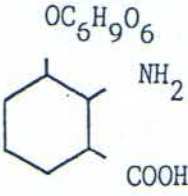
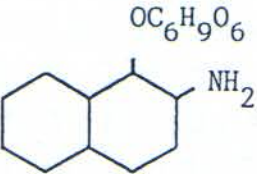
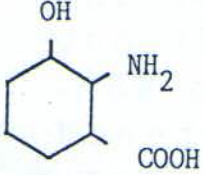
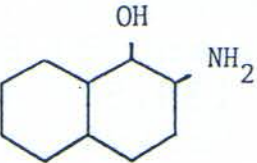
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SPONTANEOUS URINARY CANCER	STEPS	INDUSTRIAL OR CHEMICAL CANCER
 <p>TRYPTOPHAN</p>	<p>Substance Absorbed</p>	 <p>2-Naphthylamine and other 2-Amines</p>
 <p>TRYPTOPHAN GLUCURONIDE</p>	<p>Product formed in liver and excreted by kidneys</p>	 <p>NAPHTHYLAMINE GLUCURONIDE</p>
 <p>3-HYDROXY- ANTHRANILIC ACID</p>	<p>Carcinogens liberated in urinary tract by enzyme Beta-Glucuronidase and ?reabsorbed into blood stream</p>	 <p>2-AMINO-1-NAPHTHOL</p>

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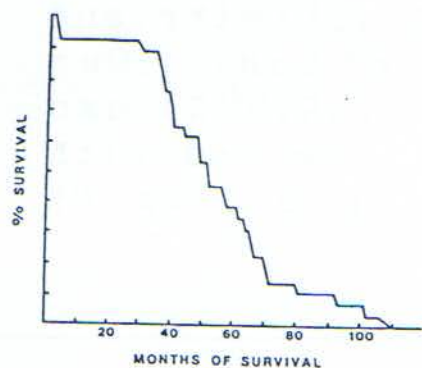


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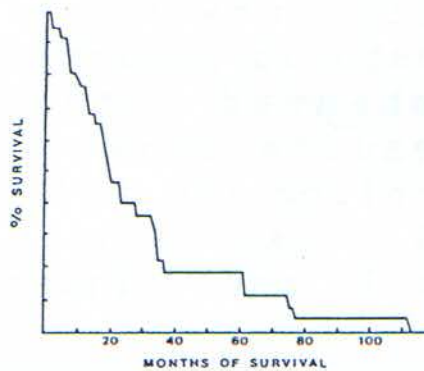


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