

A Simpler Treatment for Skin Cancer

... is advocated by Dr. F. J. C. Roe,
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Should cytotoxic and antimetabolic drugs be used in the treatment of skin cancer, particularly rodent ulcers?

Dr. J. C. Belisario in Sydney believes that local application of ointments containing cytotoxic and/or antimetabolic drugs (such as demecolcine and the colchicine derivatives, methotrexate and triaziquone), either alone or in combination, has "a definite place in the experimental and actual treatment of skin cancer and precancer."

In Buffalo, New York, Dr. E. Klein and his colleagues have reported on local application of 5-fluorouracil in basal cell carcinoma. They write "the recurrence rate, even during the relatively short period of observation, is considerably higher than that following management by established methods" (ie, surgery and radiotherapy). They conclude that "local chemotherapy at this stage of knowledge is clearly not indicated for the routine clinical management of solitary basal cell carcinoma."

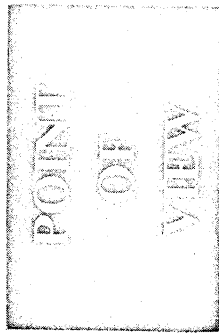
The views of Belisario and Klein differ! Which is right?

In 1944 Dr. Duncan Cameron at the Cumberland Infirmary, Carlisle, reported the successful treatment of rodent ulcers by the repeated application of sodium bicarbonate for periods of from 10 days to 2½ years. Eleven out of 13 small ulcers in which there was no involvement of deep structures healed, though follow-up of some of these 11 cases was too short for final evaluation. The relative success of this simple form of therapy may be surprising, but of more significance is the fact that treatment failed in two of these 13 early cases and in all of three cases of large rodent

on tumour cells since the lesion is accessible and, at least in the early stages, well defined in the spatial sense. Thus a cell-destroying agent may be applied more or less accurately to the tumour without concomitant destruction of normal cells. It is not, therefore, unreasonable to use for this purpose any chemical which kills cells, provided that it is not readily absorbed and has no undesirable side effects. For this, Cameron's sodium bicarbonate is probably too mild and therefore too slow in its action. At the State Hospital in Madison, Wisconsin, however, Dr. Frederick Mohs has for many years and with widely acknowledged success, used zinc chloride in the treatment of all forms of skin cancer, but especially rodent ulcer. Whereas surgeons and radiotherapists claim a 95 per cent success rate in the treatment of early uncomplicated rodent ulcers, Mohs' method claims success in 99.4 per cent of cases. Moreover, for lesions which have recurred after surgery or radiotherapy, Mohs has claimed a 95.6 per cent five-year cure rate.

The important characteristic of zinc chloride is that it fixes the cells it kills sufficiently well for histopathological assessment.

The day after the first application of the ointment, a section is taken from the entire base of the ulcer, and carefully orientated so that extension of tumour seen under the microscope can be matched accurately with the appearance of the ulcer itself. Thereafter, treatment proceeds by the alternate application of the ointment (to those parts of the ulcer base which show tumour extension) and microscopic re-examination. The method is eminently logical and not as time-consuming as it sounds. Because it spares normal tissues to the maximum



extent it is undoubtedly the treatment of choice for the late and complicated case.

It should also find favour in treating early lesions situated near cartilage or structures such as the eye, because treatment tends to be less deforming than radiotherapy or surgery in these cases. In so far as the application of zinc chloride gives rise to some oedema and pain (the latter controllable by simple analgesics) and on the grounds that it is somewhat more time-consuming, it may be argued that despite the slightly greater risk of recurrence, surgery or radiotherapy are to be preferred, for the treatment of early uncomplicated rodent tumours.

Treatment not available

The efficacy of the Mohs technique has been apparent for more than a decade, yet treatment is not at present available at any hospital in Britain. The problem may be that it involves the integration of two disciplines—dermatology and pathology. Even if consultants refrained from guarding their special territories with the vigour of predatory birds, the dice are loaded against any innovation which interferes with preconceived ideas of the demarcation between specialities and the facilities which it is reasonable for each to require.

In the meantime the results of Belisario and Klein in experiments poorly controlled from a histopathological point of view in comparison with the degree of control obtained with the Mohs technique, hardly justify further experiments of the same kind. There is no rationale for using sophisticated cytotoxic and antimetabolic drugs unless like zinc chloride they act as fixatives and permit the histopathological assessment of the effects of treatment stage by stage. Without such control, any treatment of rodent ulcers by the local application of ointments must be regarded as a potentially retrograde step.