THERAPY

BASAL CELL CARCINOMA TREATED WITH TOPICAL CHEMOTHERAPY

By

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INTRODUCTION

Carcinoma of the skin is rare in the coloured races than white races, and basal cell carcinoma rarer than squamous cell carcinoma. This has been conclusively proved by statistical study by various investigators.

Shanin (1951) found that skin cancer occured in 89.4% in people with fair skin and hair in Russia.

Seldam (1953) observed that rodent carcinoma was rarely found in dark skinned races.

Khanolkar (1954) found skin cancer in India at Bombay in only 3%.

Grieve (1961) noted 35% skin cancer in white Africans but only 2.5% in coloured Africans.

Oettle (1963) reported that skin cancer is 11 time more common in whites than Negroes.

The highest incidence of skin cancer in the world is found in Australia, where it comprises nearly 60% of all cancers. This is supposed to be due to the fact that the present population of Australia consists predominently of 'Caucasian' descent with fair skins.

The carcinogenic rays of the solar spectrum lies between 2900 and 3341 A° in people with fair skins and fair coloured eyes (BELISARIO-1959), and perhaps the same is true in the case of coloured skins of the darker races.

PIGMENTATION AND SKIN CANCER

The lesser incidence of cancer of the skin in the coloured races is supposed to be due to the greater protection afforded by the pigment of the skin.

According to MACKIE AND Mc GOVERN (1953), the pigment content of the skin was supposed to be the main protective factor against the carcinogenic effects of the solar radiation.

The pigment is confined almost entirely in the basal layer in the white races, whereas in the coloured races it is not only found in the basal layer but also distributed in the outer layers of the epidermis which is supposed to be responsible for the skin in the coloured races.

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Experiments of BLUM (1959) and KELNER and TAFT (1956) in the mouse have shown that cancer is produced at the sites of the tissues where the radiations are mostly absorbed.

If the above facts are taken into consideration, it is logical to presume that the white races should be more prone to develop squamous cell carcinoma rather than basal cell carcinoma as the basal layer of the skin is protected by the pigment and the solar radiation is mainly absorbed in the outer layers of the epidermis. Hence I think that the pigment is only one of the protective factors in the causation of the skin cancer in general and basal cell carcinoma in particular in the coloured races. There are other factor or factors which are of equal or if not of greater significance in the causation of skin cancer in people of all colours; such as collagen degeneration, photochemical reaction and the most improtant of all, the susceptibility of the individual or race with predisposition of the skin for carcinogenic response.

The descendents of generations of white races who lived in cold, cloudy climates with little sunshine when exposed to the unaccustomed, unfiltered bright actinic rays of the sun in tropical and subtropical climates become vulnerable to cancer of the skin. It would be interesting to watch the incidence of skin cancer in the future generations of white people in sunny climates to study whether they can get acclimatised to the climatic environment and develop resistance to solar radiation.

COSMETICS

Lip cancer in women is only a fraction of that seen in men. This disparity in the incidence of lip cancer in the two sexes is supposed to be due to the protective covering of lipstick in women.

ROLLIER and PELBOIS (1960) found the incidence of basal cell carcinoma higher in the darker Moroccans than fairer European women due to the out door mannual work and absence of protection from cosmetics in the former.

It is stated that men in the advanced countries are already using cosmetics for obvious reasons and perhaps in the not too distant future the use of cosmetics may no longer be the privilage of women and may also become the right of man.

If lipstick or other cosmetics can prevent skin cancer, it is worth while to try the use of cosmetics in which substances like titinium dioxide, paraaminobenzoic acid etc, are incorporated as a protection against the actinic rays of the sun. In persons who are not keen on cosmetics, the ingredients can be incorporated in a non-irritating, colourless, odourless, bland base and used on the exposed parts of the body in those especially employed for long hours in out-door work.

CLINICAL FEATURES

Majority of skin cancers occur on the face, nose, forehead and exposed parts of the forearms.

Basal cell carcinoma starts as a pinhead sized warty lesion and gradually grows in size giving rise to a rolled, pearly border, waxy looking, translucent, elevated growth central ulceration and covered by a crust. Telangiactasis is frequently present.

Basal cell carcinoma is usually single but may be multiple.

Inspite of its tendency to invade locally giving rise to destruction of skin, tissues and rarely even cartilages and bones, Basal cell carcinoma seldom metastasize. So far about 42 cases have been reported in the literature where basal cell carcinomas have become metastasized.

Case History.

Female.......... B. M........... 60 Years.
General Health.................. Good.

Complaint: Ulcer right side of the face 12 years duration.

Evolution: The lesion started as a small vesicle which burst resulting in an ulcer. This gradually increased in size with a central crust formation.

On Examination. A depressed ulcer with well defined slightly raised margins $\frac{3}{4}'' \times \frac{1}{2}''$ in size was seen on the right side of the face over the malar region. The ulcer was covered by a crust. There was telangiectasis present.

Biopsy Report. Basal cell carcinoma. All other laboratory investgations were normal.

Treatment. This paper relates to the treatment of basal cell carcinoma by Topical Chemotherapy.

The ointment used was a combination of 0.5% each of 1. COLCEMID 2. METHOTREXATE and 3. THICCOLCIRAN in a special base.

1. *Colcemin.* (N-Desacetyl methyl colchicine) was isolated by SANTAVY AND REICHSTEIN (1950) in association with CIBA, from the meadow saffron plant.

Colcemid exerts a selective action on tumour cells by inhibiting mitosis in the metaphase. (SCHAR et al 1954).

Methortexate. (4-amino N10 methyl pteroglutamic acid.) Methotrexate acts on a different stage of mitosis since it prevents the commencement of this process by interference with the synthesis of desoxyribonucleic acid (Van Scott 1962).

Thiocolciran. (N-deacetyl thio colchicine chlorhydrate or R261) Russel Drug Co., Paris.

Thiocolciran has similar action as colcemid in stopping mitosis in the metaphase (BASSEL and MONTFORT 1955).

Colcemid and Methotrexate have synergistic action when combined and the action of Thiocolociran enhances the theraputic effect.

The ointment was applied locally, daily with a sterile dressing for 4 weeks and than an antibiotic dressing for 2 more weeks and the lesion completely healed leaving a faint scar.

SUMMARY

A case of basal cell carcinoma on the face treated by topical chemotherapy s presented.

Carcinoma of the skin is more common in the white races than the coloured races and the pigment content is supposed to give greater protection in the coloured races. I feel this alone cannot be a determining factor in the protection afforded and the reason discussed. Lipstick is supposed to be responsible for lower incidence of cancer of lip in women and the author recommends cosmetics with antiactinic drugs like Titinium dioxide Para-aminobenzoic acid etc., in persons of out door occupation. Clinical features are discussed. Treatement with the topical chemotherapy containing 1. Colocemid. 2. Methotrexate and 3. Thiocolciran is discussed in detail ✓

CONCLUSION

I am of the opinion that the topical chemotherapy is safe, no need for hospitalisation, expensive instruments are not necessary, avoids the sometimes deleterious effects of irradition and gives a good cosmetic results and the choice of treatment in the lesions of the face.

The only drawback is that except methotrexate, the other drugs are not available in India.

This paper is presented because this is the first reported case of basal cell carcinoma treated with topical chemotherapy in *India*.

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ASSOCIATION ACTIVITIES

XII ANNUAL CONFERENCE OF THE INDIAN ASSOCIATION OF DERMATOLOGISTS & VENEREOLOGISTS

This is to inform you that the XII Annual Conference of the Indian Association of Dermatologists & Venereologists shall be held jointly with 25th Joint Annual Conference of the Association Physicians of India from *17th to 21st January, 1970* at Bombay. Dr. S. D. Store c/o Professor of Medicine T. N. Medical College, Dr. Nair Road, Bombay 8, is the Organising-Secretary of the conference. Any further information may kindly be obtained from Dr. B. M. S. Bedi, General-Secretary, Indian Association of Dermatologists & Venereologists HP Medical College Simla-1 (HP).