INDIAN J DERMATOL VENEREOL LEPROL 1986; 52 : 99-100

SQUAMOUS CELL CARCINOMA ON A PREEXISTING PLAQUE OF NEURODERMATITIS

K Pavithran

Squamous cell carcinoma developing over a plaque of neurodermatitis is reported in an elderly male.

Key words : Squamous cell carcinoma, Neurodermatitis, Lichen simplex chronicus.

Squamous cell carcinoma may arise de novo in the skin or may arise on a pre-existing skin lesion such as lupus vulgaris, lupus erythematosus, lichen planus, porokeratosis of Mibelli, psoriasis, epidermolysis bullosa, epithelial nevus, granuloma inguinale, chromoblastomycosis, acne conglobata, hidradenitis suppurativa, lichen sclerosus et atrophicus, nevus sebaceus, scar tissue, sinuses and fistulae.[1-9] We are reporting a case of squamous cell carcinoma which developed in an elderly male patient over a plaque of neurodermatitis.

Case Report

A 45-year-old male coolie had been frequently attending the out patient section of this hospital for the treatment of intensely pruritic plaques on the lateral aspect of both knees since 12 years. After making a diagnosis of neurodermatitis, he was prescribed various skin ointments which contained petrolatum, coal tar and corticosteroid. He denied history of taking heavy metals like arsenic. Since the last 3 months, he noticed an ulcer developing in the centre of one plaque. There was no personal or family history of atopy.

The lesion was a well-defined, dry, irregular, raised lichenified plaque, 7×3 cm size, on the lateral aspect of the right popliteal fossa. In the centre of the plaque, there was an ulcer, 3×4 cm in size (Fig. 1) with a raised and everted border. The base was indurated and the floor was covered with pus and granulation tissue. The right femoral and superficial inguinal group of lymph glands were enlarged, hard and non-tender. Another lichenified, dry, well-defined plaque of 5×3 cm was seen on the lateral aspect of the left knee. There was no ulceration on this plaque. General physical and systemic examinations did not reveal any abnormality.

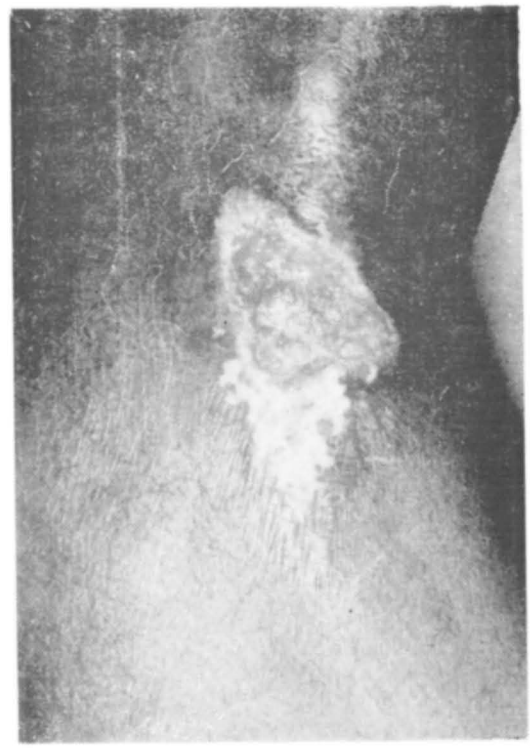

Fig. 1. A plaque of neurodermatitis on the right limb with an ulcer having an everted border.

Routine laboratory tests on blood, urine and stools were normal. Skiagram of the chest and the knees did not show any abnormality. Histopathology of the ulcer revealed features of

From the Department of Skin and VD, Medical College Hospital, Kottayam-686 008, India.

squamous cell carcinoma grade II. Histopathology of the non-ulcerated plaque revealed marked hyperkeratosis, parakeratosis, acanthosis with downward growth of rete ridges and a dense collection of lymphocytes and a few histiocytes in the upper and mid dermis. These features were consistent with the diagnosis of lichen simplex chronicus. Wide excision of the ulcer, skin grafting and block dissection of the inguinal lymph glands were done later in the surgical department.

Comments

Development of squamous cell carcinoma on a pre-existing eczematous plaque is quite uncommon. Hillstrom and Swanbeck in their study of localization of 548 squamous cell carcinomas, demonstrated that in 16 cases carcinoma developed at sites of pre-existing eczemas[10-12] and suggested that the sum of therapeutic measures (arsenic, x-ray and tar) must be considered as the cause. In the present case, carcinoma developed on top of a giant form of neurodermatitis which was associated with intense pruritus. The factors that possibly contributed to the development of carcinoma here are repeated irritation of the lesion by scratching, medicaments and chronic inflammation. Incomplete and abnormal healing occurs after many such insults accompanied by hyperplasia and loss of tissue resistence with eventual malignant change.[13]

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