

EPIDERMAL PROLIFERATIONS OVERLYING GRANULOMA PYOGENICUM

Case report

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Summary

The epithelium overlying dermal lesions of granuloma pyogenicum is invariably flattened or even ulcerated possibly due to the pressure from the underlying expansive growth. Unusual histological feature of epidermal proliferations simulating those seen overlying histiocytomas is reported in a lesion of granuloma pyogenicum from the lip. The role of dermal connective tissue appears important in induction of the epithelial changes.

Granuloma pyogenicum is a common benign soft tissue tumor comprising circumscribed areas of endothelial proliferation with formation of vesicular spaces¹. The overlying epithelium that often displays a tendency to cuff the lesion is invariably flattened or even ulcerated^{2,3}. The observation of moderate degree of epidermal proliferation overlying a lip lesion appears worth reporting.

Case Report

A 30 year old woman presented with an asymptomatic globoid lesion on the red area of the upper lip. The lesion had started 2 months back as a pinhead sized pink papule and gradually increased to become slightly pedunculated. There was no history of bleeding, trauma or any medication on the lesion.

Examination revealed a solitary deep red slightly pedunculated lesion of 5 mm

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Received for publication on 4-3-1977

size with a smooth surface and firm consistency. The lesion was excised and submitted to histologic examination.

Histopathology

Histologically, a well circumscribed lesion composed of lobes of incompletely formed vessels with varying degrees of dilatation and endothelial proliferation in the corium was seen (Fig. 1 page No. 332). Inflammatory reaction was absent and serial sections revealed edematous stroma with varying amounts of immature collagen.

The epidermis overlying the dermal lesion was intact throughout and displayed a peculiar basal budding along most of its under surface (Fig 2 page No. 332). The epidermal proliferations were made of small basaloid cells that at places showed tendency towards endokeratinization.

Comment

As a rule, most dermal lesions of similar nature with a solitary exception of histiocytoma are associated with no alteration or pressure atrophy of the

overlying epithelium. A series of benign dermal lesions viz. cysts, scars and keloids studied by Halpryn & Allen⁴ failed to reveal any important epidermal change thereby discounting any stimulating effect of the dermal component on the epithelium. Subsequently, significant epidermal changes varying from a mild acanthosis to a basaliomatous change were demonstrated in sections from histiocytomas by a number of workers^{5,6,7}.

The origin of such epidermal proliferations has been related to the presence of subjacent dermal reaction and though morphologically basaliomatous, their biological behaviour is alleged to be benign⁸, except in a few instances of true malignant change^{6,7,9}. We have never seen epidermal changes as reported in this paper in biopsies from numerous lesions of granuloma pyogenicum received in our laboratory and the perusal of available literature^{1,10,13} failed to reveal any similar instance.

Both histiocytoma and granuloma pyogenicum, are regarded by most workers to be reactive rather than true neoplastic lesions. At times, epidermal proliferations overlying dermal tumors have been related to rudimentary structures especially the immature and fetal hair germs⁶. But in instances of moderate acanthosis overlying histiocytomas on the palms and soles¹⁴ and basal proliferations in the present lesion from the lip, such a relation appears unlikely. Perhaps, the alterations in the dermal connective tissue are more important in induction of the epithelial changes.

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