

ACANTHOMA FISSURATUM—SPECTACLE FRAME ACANTHOMA

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Abstract. The development of a cutaneous nodule at the site of friction of spectacles has been discussed by several authors. In all but one case the lesion occurred behind the ears. The only previous report of this acquired tumour occurring on the nose is that of Farrell & Wilson (4). It is suggested that this problem is relatively common and most frequently presents when mistaken for basal cell epithelioma or when identified in medical personnel. A further six cases of this neglected tumour occurring on the nose are described.

Key words: Skin, reactive hyperplasia; Eyeglasses

CASE REPORTS

Case 1. An 80-year-old woman developed a painful ulcer on the nose 2 months after changing her spectacles. The lesion was thought to be a basal cell epithelioma. Examination revealed a firm pink nodule with a central fissure to the right of the nasal bridge. (Fig. 1). Direct questioning revealed that the new spectacles were heavier and tended to slide down the nose. The lesion was diagnosed as acanthoma fissuratum and adjustments were made to prevent the spectacles from slipping. On review, the lesion had disappeared and was said to have resolved in 2 weeks.

Case 2. A 69-year-old Irish female was referred by her doctor with a provisional diagnosis of basal cell epithelioma. Over 2 months a growth had developed to the left side of the nasal bridge. Six months previously she had broken her spectacles and started to wear her sister's because "they suited" her. Corresponding to the site of pressure from the nose rest of the spectacles, there was a firm, flesh-coloured nodule, 2 × 1 cm, with a grooved central depression. The spectacles were ill fitting and spontaneously rested low on the nose. Acanthoma fissuratum was diagnosed. The lesion resolved 4 weeks after new spectacles were provided.

Case 3. A physician noted the development of a fissured painful lump to the left side of the nasal bridge while holidaying in a hot climate. The nodule was tender, flesh-coloured and showed a central fissure. The lesion occurred where his new, heavier spectacles were slipping down the nasal bridge and resting against the slightly protruding nasal bone—the site of previous trauma. The lesion healed within 2 weeks of correcting the ear pieces to prevent slipping.

Case 4. (Case of Dr T. J. Delaney). Within a few months of changing her spectacles, a 25-year-old female developed a horizontally fissured nodule across the centre of the nasal bridge. There were also small lesions of acanthoma fissuratum

behind both ears. The lesions resolved after adjusting the bridge and ear pieces of the spectacles.

Case 5. A 28-year-old male, the husband of a secretary in the dermatology department, developed a small fissured tumour on the left side of the nasal bridge. Although the spectacles had not been altered, the lesion developed within 4 weeks of the onset of an exacerbation of seborrhoeic dermatitis involving the nasolabial folds and the sides of the nose. Resolution occurred with improvement of the seborrhoeic dermatitis.

Case 6. A 48-year-old female developed a painful, fissured nodule on the left side of the nasal bridge. Although this was attributed to heavier spectacles, these had been worn without trouble for over a year. The lesion disappeared within 2 weeks of changing the spectacle frames.

DISCUSSION

An analogous situation occurring on the buccal mucosa caused by lodged food particles was described under the title granuloma fissuratum by Sutton (6). The histology of such cases shows acanthosis, hyalinisation of the upper dermal collagen, dilated blood vessels and a minor inflammatory infiltrate. It is now recognised that such mucosal lesions are associated frequently with poorly fitting dentures.



Fig. 1. Acanthoma fissuratum—lateral nasal bridge.

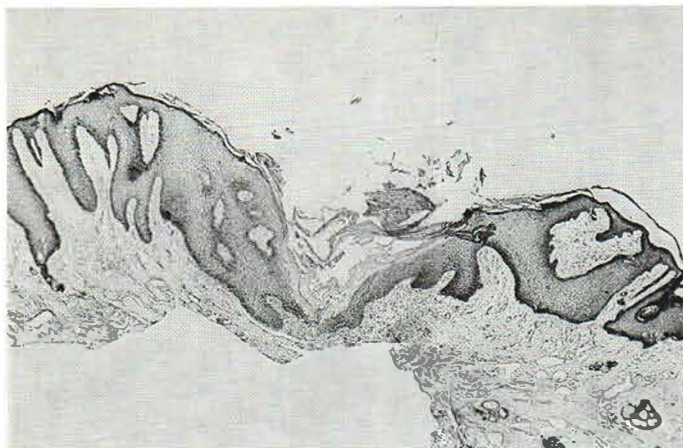


Fig. 2. Acanthosis lateral to a depressed area of attenuated epidermis corresponding to the site of fissure (H+E, $\times 11$).

Epstein (3) first drew attention to "granuloma fissuratum" of the skin with a description of two examples behind the superior pole of the ear and obviously related to ill-fitting spectacles. Fretzin's case (5) was similar but the lesions were situated at the inferior poles behind both ears. Tannenbaum (7) reported an example occurring in a physician and likened the histology to other situations in which chronic friction takes place, such as prurigo nodularis. In that instance, resolution occurred within 3 weeks of spectacle adjustments.

The first reported case of "granuloma fissuratum" on the nose (4) was also caused by spectacle frames and resolved rapidly after adjustments. The resemblance to basal cell epithelioma was emphasised. We were unable to find in the literature any other reports of this tumour arising on the nose.

Delaney & Stewart (2), reporting 3 cases behind the ears, suggested that the condition was relatively

common but not well recognised. This view is endorsed by our own opinion and by Barnes et al. (1), who pointed out that opticians and often the patients themselves were well acquainted with these lesions and their aetiology. One patient of Barnes et al. (1) had experienced multiple lesions in the past, including one at the side of the nose and one on the cheek where the rim of the spectacles impinged.

The histology of these tumours is non-specific but in association with the clinical details is virtually diagnostic. The epidermis shows considerable acanthosis with a central depression where the epidermis is considerably attenuated or frankly ulcerated. There is frequently hyperkeratosis with foci of parakeratosis in the region of the epidermal fissure. Some cases show epidermal oedema. Upper dermal capillaries are dilated and there is hyalinization of the collagen in the vicinity of the fissure. A mild to moderate dermal infiltrate of lymphocytes, plasma

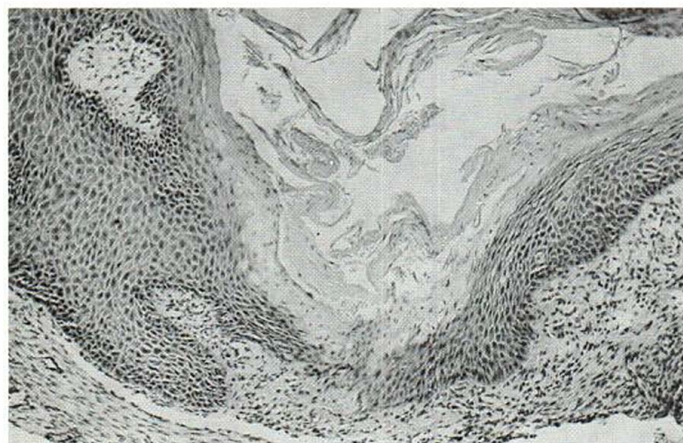


Fig. 3. Epidermis showing parakeratosis and localised atrophy, with hyalinisation of underlying dermal collagen (H+E, $\times 85$).

cells and histiocytes is present. These changes are seen in Figs. 2 and 3. In none of our cases was histology necessary to make a diagnosis. However, there is no doubt that this lesion may be confused with basal cell epithelioma, a point which is emphasised in almost every previous discussion on the subject. Helpful differentiating features are the central fissured groove, the absence of a "pearly edge", position at an exact site of pressure and the rapid resolution on removing the local trauma. We feel that resolution of the lesion within 4 weeks of removal of the traumatising agent will serve as its own diagnostic confirmation and circumvent surgery.

Barnes et al. have noted that cellulose acetate and nitrate spectacle frames develop rough matt surfaces after long contact with skin and may contribute to the pathogenesis. Our experience suggests that the weight of the spectacles, local derangement of the anatomy such as fracture of the nose and the maceration which occurs with sweating or concomitant skin disease in intertriginous sites may be significant.

While we agree with Barnes et al. (1) that granuloma fissuratum is an inappropriate label, the title of acanthoma fissuratum is histologically accurate, would include the closely related skin and buccal mucosal lesions and would allow inclusion of lesions which might be caused by other items such as

hearing aids or monocles in addition to the commonplace spectacles.

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