

A Tiny Yellowish Growth on the Eyebrow

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A 25-year-old female presented with an asymptomatic, 4 × 2 mm, yellowish growth along the inferior margin of the left eyebrow since 6 months [Figure 1]. She was not on any long-term medications, and none of her other family members had a similar complaint. The lesion was well-circumscribed and had a lobulated surface, which was clearly visualized through a 30x magnifier attached to the camera lens [Figure 2]. The lesion was excised under local anaesthesia with a 4 mm disposable skin biopsy punch for histopathological analysis [Figures 3 and 4].

What is the diagnosis?

Answer

Benign sebaceous hyperplasia



Figure 1: A 4 × 2 mm circumscribed yellowish growth on the inferior margin of the left eyebrow.

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Clinical Course and Microscopic Findings

Hematoxylin and eosin examination revealed aggregates of hyperplastic mature sebaceous glands occupying almost the entire dermis [Figure 3]. Higher magnification revealed mature sebaceous glands with peripheral rim of small, pigmented basaloid cells and central lipid-laden mature sebocytes exhibiting holocrine secretion [Figure 4]. The punch excision performed for histopathological analysis was also curative.

Discussion

Benign sebaceous hyperplasia is the most common proliferative anomaly of the sebaceous glands. It is characterized by asymptomatic, circumscribed, yellowish umbilicated papules commonly involving the face and eyelids. The neck, chest, nipples/areolae, and genitals may be uncommonly affected. Histologically, it is characterized by the proliferation of mature sebaceous glands, surrounding a central pilosebaceous unit.^[1,2] At the periphery of the lobule are a few smaller and pigmented basaloid cells which mature as they move

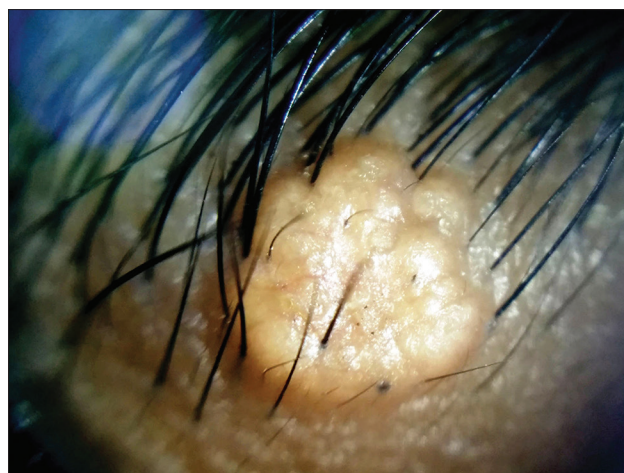


Figure 2: A magnified visualization of the lesion clearly showed the lobulated surface and yellowish colour with a few hair follicles traversing through it. [x30 magnification]

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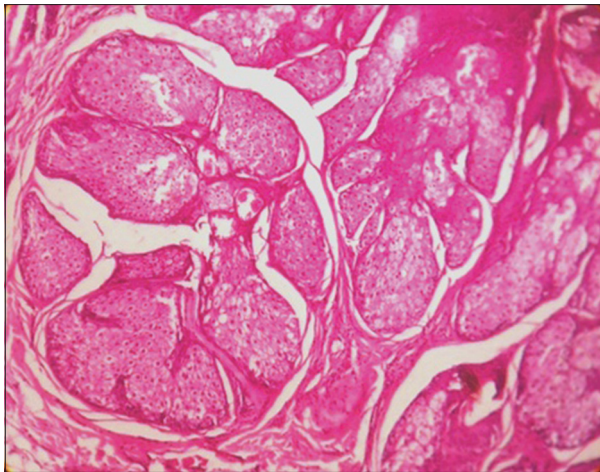


Figure 3: Photomicrograph of the lesion showing aggregations of hyperplastic mature sebaceous glands occupying almost the entire dermis with intervening septa-like partitions. [x10, H and E]

towards the centre accumulating lipid. At the centre, the cells undergo degeneration and release their contents (holocrine secretion) as seen in Figure 4. The architecture of the glandular structure as well as that of the cells is normal without any atypia.^[3]

Benign sebaceous hyperplasia is commonly a disease of elderly attributed to both chronological ageing and photoageing. This senile form is due to diminished circulating androgens leading to reduced turnover of sebocytes that accumulate within the glands causing their enlargement.^[4] In the familial pre-senile form, inherited as an autosomal dominant condition, multiple and extensive lesions develop at puberty and worsen with age. They involve the head and neck region, upper trunk and spare the periorificial areas.^[2] Sebaceous hyperplasia attributed possibly to the direct proliferative effect of cyclosporine is described as an iatrogenic form seen in organ transplant patients on long-term immunosuppression with this drug.^[4]

Clinically, benign sebaceous hyperplasia and sebaceous adenoma appear similar as both usually present as small (less than 1 cm) yellowish papules involving the head and neck region. Histological differentiation between the two is also occasionally difficult. However, the peripheral basaloid seboblats are usually more in number compared to those in benign sebaceous hyperplasia. Sebaceomas occur as deep-seated fleshy nodules or cysts, commonly measuring about 1–5 cm. They are usually solitary but multiple lesions may be seen in association with Muir-Torre syndrome. Histopathologically, the tumour occupies the mid dermis and upper subcutis and is characterized by nests of basaloid seboblats forming the bulk of the tumour with intervening clusters of mature sebocytes and duct-like structures. Scattered mitotic figures are common but the atypia is not of the order

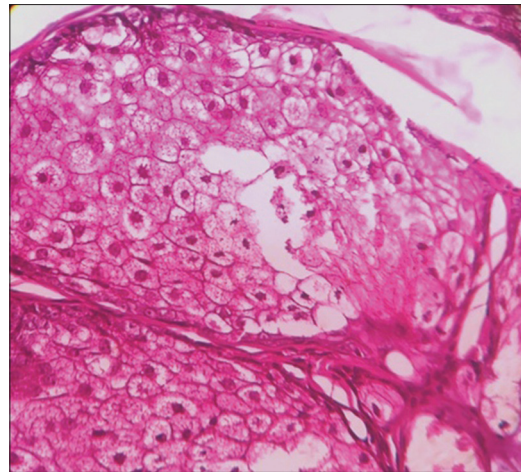


Figure 4: Higher magnification showing mature sebaceous glands without any cellular atypia, and the characteristic holocrine secretion at the centre. [x40, H and E]

of sebaceous carcinoma.^[3] Histopathology of the iatrogenic (cyclosporine-induced) form is characterized by multilayered peripheral basaloid sebocytes which although are still outnumbered by the mature sebocytes reflecting the possibility that cyclosporine induces proliferation but does not promote the maturation of sebocytes.^[4]

Simple excision, shave excision, or destructive procedures like electrocautery, radiocautery and chemical cautery are curative and are only indicated for cosmetic reasons.^[2]

Learning points

- Benign sebaceous hyperplasia is the most common proliferative anomaly of the sebaceous glands commonly involving the face and eyelids.
- In the familial pre-senile form, inherited as an autosomal dominant condition, lesions develop at puberty and worsen with age. Lesions are multiple and extensive typically sparing the periorificial areas.
- An iatrogenic form attributed possibly to the direct proliferative effect of cyclosporine is described in organ transplant patients on long-term treatment with this drug.
- Histologically, benign sebaceous hyperplasia is characterized by the proliferation of mature sebaceous glands exhibiting a normal glandular and cellular architecture.
- Treatment is not required for benign sebaceous hyperplasia unless there is cosmetic concern when simple excision, shave excision, electro-, radio- and chemical cauterization are curative.

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Conflicts of interest

There are no conflicts of interest.

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