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Clinical Records

Aural sebaceous adenomas*

by

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Introduction

The skin of the head and neck is that cutaneous segment of the body with the heaviest concentration of sebaceous glands, but true neoplasms like sebaceous cell adenomas and carcinomas are still infrequent here (Batsakis *et al.*, 1972). Essentially, sebaceous adenoma is an organoid tumour consisting of circumscribed proliferations of incompletely differentiated glandular structures (Lever and Lever, 1975). Many tumors described in the literature as sebaceous adenomas are in reality sebaceous naevi of Jadassohn. True sebaceous adenoma is a rare growth (Toppozada, 1963; Tiecke, 1965; Batsakis *et al.*, 1972; Lever and Lever, 1975) and should be differentiated from a simple hyperplasia of the sebaceous glands. It occurs as a smooth, elevated, often slightly pedenculated tumour located mostly on the face or scalp, and usually measures less than 1 cm. in diameter. Examples of sebaceous adenoma have been described by Woolhandler and Becker (1942), Lever (1948), Groterjahn (1950) and Essenhigh *et al.* (1964), among others. Two cases of sebaceous adenoma of the ear are presented because of their rarity, their exceptionally large size and the presence of a peculiar oily surface which, we believe, forms an important clue to the diagnosis of these lesions; this last observation is recorded here for the first time.

Case I:

B.B., a 22-year-old male, presented to the ENT services of M.G. Institute of Medical Sciences & Kasturba Hospital, Sevagram on 19 March 1982 with complaints of a mass protruding from the left ear for 12 months and partial hearing loss in the same ear for 6 months. There was no history of pain in the ear, trauma or discharge from the ear. Personal and family history were non-contributory. Examination revealed an absence of cervical lymphadenitis but there was a firm non-tender, non-pulsatile growth, with a smooth lobulated surface, about 6.5 cms. × 3.5 cms. in size and completely filling the concha (Fig. 1). It was attached to the anterior wall, floor and part of the posterior wall of the external auditory meatus by a short pedicle (Fig. 2). A peculiar observation was the fact that the surface of the tumour was shiny and oily and that rubbing the mass with a clean thumb or finger resulted in the transmission of an oily layer onto the thumb or finger. The left tympanic membrane was not visible, but the right ear was normal, as were the nose and throat. Tuning fork tests revealed a conductive hearing loss in the left ear. Blood, urine and X-rays of mastoids were normal.

The whole mass was excised, and histopathological study showed lobules of irregular size and shape, with two types of cells in them—undifferentiated germinative cells towards the basement membrane and mature sebaceous cells in the centre (Fig. 3). These histopathological features were consistent with a sebaceous adenoma. A post-operative pure tone audiogram showed normal hearing in both ears. There had been no recurrence of the growth after 2½ years.

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FIG. 1

Large aural growth with smooth, lobulated surface (Case No. 1).

Case II:

G.B. a 50-year-old female, came to the ENT Department of M.G.I.M.S. and Kasturba Hospital, Sevagram on 2 July 1982 with a history of a gradually increasing swelling in the right ear of four years' duration and pain in the swelling for eight days. There was no history of trauma to the ear. Personal and family history were non-contributory. On examination there was no significant cervical lymphadenopathy. In the right ear a slightly tender, non-lobulated, non-pulsatile, firm, smooth globular swelling, 2 cms. × 2 cms. in size, was noted. It was arising from the posterior wall of the cartilagenous external auditory canal just inside the meatus and it filled the whole of concha (Fig. 4). The tympanic membrane was not visible and tuning fork tests showed a conductive hearing loss in the right ear. The rest of the ENT examination was within normal limits. The surface of this swelling was also shiny and oily and rubbing the tumour with a clean finger again resulted in an oily smear on the finger. Basing our opinion on this particular feature and on our experience of the first case, the possibility of a sebaceous adenoma was kept in mind. Excision of the tumour followed by histopathology confirmed the diagnosis. Post-operative audiometry revealed normal hearing in both ears, and the patient was free from recurrence two years later.

Discussion:

Sebaceous glands are prominent adnexal components of the skin normally found either closely associated with hair follicles (90 per cent), to form the pilosebaceous apparatus, or independently in the skin. The glands are alveolar, holocrine in type with their lipidic secretions formed by total disintegration of the cells. The sebum thus formed is discharged *via* short ducts.

The anatomical distribution of sebaceous glands is uneven, with the face and scalp representing the areas of greatest density; surprisingly, however, true neoplasms, i.e. sebaceous cell adenomas and carcinomas, are infrequent here. Normal glands vary in size from 0.2 mm. to 2.0 mm. in diameter and are largest in the skin of the nose and the concha of the ear.

Cutaneous sebaceous neoplasms can be separated into three categories: sebaceous adenoma; basal cell carcinoma with sebaceous differentiation; and sebaceous carcinoma. Three other entities cause confusion with sebaceous neoplasms: nevus sebaceous of Jadassohn; adenoma sebaceous

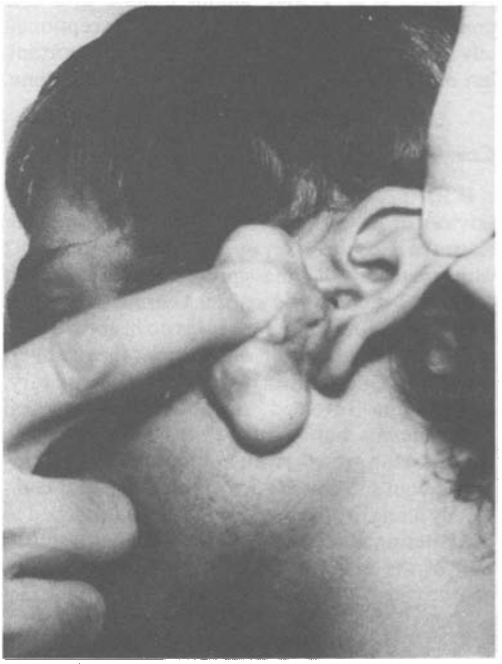


FIG. 2

Attachment of growth to the external auditory meatus by a short pedicle (Case No. 1).

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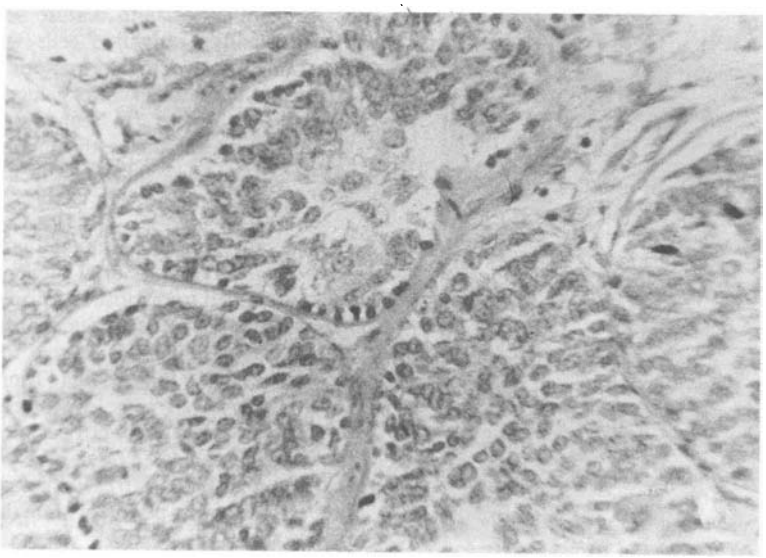


FIG. 3

Photomicrograph showing lobules of irregular size and shape with two types of cell population: generative towards the basement membrane and sebaceous in the centre. (H.&E. × 400).

of Pringle; and adenomatoid sebaceous hyperplasia (Rulon and Helwig, 1974).

The nevus sebaceus of Jadassohn is a hamartoma commonly found on the scalp soon after birth. A clear distinction from sebaceous neoplasms is possible.

Adenoma sebaceus of Pringle, a hamartoma, is part of the 'tuberous sclerosis' complex. Actually little or no sebaceous hyperplasia occurs and the histologic features most often seen are overgrowth of connective tissue and blood vessels.

Adenomatoid sebaceous hyperplasia (senile sebaceous nevus; senile sebaceous hyperplasia) can usually be separated from true sebaceous neoplasms microscopically on the basis of its resemblance to normal sebaceous gland structure (Rulon and Helwig, 1974).

Solitary sebaceous adenomas are more frequent on the face or scalp (Lever and Lever, 1975). In a large study of cutaneous sebaceous neoplasms, Rulon and Helwig (1974) reported them to be skin-coloured lesions occuring mainly on the nose, cheek and scalp. They noted only one case, amongst 46 patients, involving the ear. Only two sebaceous adenomas at different sites (excluding the eyelids) were found to be as large as 5 cms.–9 cms. in diameter, though the sizes ranged from 0.1 to 9.0 cms. We have also encountered large skin-coloured lesions on the ear, one measuring 6.5 cms. × 3.5 cms., the other 2 cms. in diameter. We would like to emphasize the enormous size of our tumours, especially in the first case, and also the peculiar finding of an oily surface on these tumours which, in our opinion, can contribute usefully in their clinical diagnosis. Most of the patients of Rulon and Helwig were in their 6th and 7th decades of life and a slow rate of tumour growth was reported in 80 per cent. One of our patients was only 22 years of age, the other being a 50-year-old female; the rate of tumour growth was somewhat rapid in the first case.

According to Toppozada (1963) sebaceous tissue shows large clear sebaceous cells arranged irregularly in lobular masses frequently close to the epidermis. As compared to the cells in the centre, which resemble the normal gland, those at the periphery stain more deeply, partly as a result of less and more finely divided lipoid and partly due to somewhat larger, more hyperchromatic nuclei. Mitotic figures may be absent or fairly numerous. However, they are in no way metaplastic. Evans (1978) accepts sebaceous lesion as polylobular, with each lobule composed mainly of recognisable sebaceous cells, along with basal cells which presumably arise by differentiation from the former cells. Rulon and Helwig (1974) have established the following criteria for cutaneous sebaceous adenomas and also for their differentiation from sebaceous hyperplasia.

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FIG. 4

Smooth globular growth filling whole concha (Case No. 2).

(1) A sharply circumscribed lesion with an organoid pattern.
(2) Irregularity of size and shape of the sebaceous lobules.
(3) Appearance of both mature sebaceous cells and small germinative cells which may be arranged in an irregular pattern.
(4) Lack of a dilated excretory duct or a common excretory duct. (In contrast to this, in sebaceous hyperplasia, the lobules are grouped around a central wide duct which empties on to the surface).

The microscopic changes in both our cases satisfies the above criteria. Serial sections of both our specimens failed to disclose a central duct.

Sebaceous adenoma is adequately treated by local excision. Malignant change to a adenocarcinoma does occur in adenoma (Toppozada, 1963; Hammond, 1979). The recurrence rate of sebaceous adenoma is about 7 per cent, most of the lesions being eradicated by re-excision (Rulon and Helwig, 1974). In our two cases there is no evidence of recurrence over a period of more than two years.

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