Post-Auricular Dermoid Cyst: A Case Report With Review Of Literature

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Citation

Abstract
Dermoid cysts are very rare in head and neck area and its presence in postauricular region is further exceptionally rare. Only few cases were found in English literature. We present a case of unilateral postauricular dermoid cyst in an 18-year-old boy.

INTRODUCTION
Dermoid cysts are a type of teratoma occurred as a result of the sequestration of the skin along the lines of embryonic closure. Postauricular dermoid cysts are extremely rare, reported in few case reports. We present a case of unilateral postauricular dermoid cyst in an 18-year-old boy.

CASE REPORT
An 18-year-old boy presented with a prominent swelling behind the left ear for the last two years (Figure 1). Swelling was initially of peanut size and increased gradually to the present size. Swelling was soft, cystic, globular and non-tender with restricted mobility. Margins are well defined. Skin over the swelling was normal and was not attached to it. There was no discharging sinus or pointing abscess. Bruit or any pulsation was not present in the swelling. There was no history of trauma, fever, loss of appetite, discharging ear, difficulty in hearing etc. The patient had no other complaints or other constitutional symptoms. There was no history of such lesion in his family members.

Blood profile revealed hemoglobin level of 12.2 gm%. The white blood cell count was normal. ESR was 12 mm/hr. Other routine blood investigations, urine analysis and serum chemistry were found to be normal. HIV test was negative.

The cyst was excised under general anesthesia. The recovery was uneventful.

Grossly the cyst cavity was filled with greyish-white pultaceous material with bunch of hairs (Figure 2). Microscopically the wall of the cyst was composed of stratified squamous epithelium and reticular dermis with fully mature epidermal appendages (Figure 3). The sections also showed multiple hair follicles containing hairs.
sebaceous glands and interspersed adipose tissue (Figure 4).

**Figure 2**
Figure 2: Cut section of cyst showing greyish-white pultaceous material with bunch of hairs

![Figure 2](image1)

**Figure 3**
Figure 3: Cyst wall composed of stratified squamous epithelium (SSE) and reticular dermis with Sebaceous gland (SG) (H&E stain, 40x)

![Figure 3](image2)

**Figure 4**
figure 4: hair follicles (hf) containing hairs, sebaceous glands (sg) and interspersed adipose tissue (h&e stain, 40x)

![Figure 4](image3)

**DISCUSSION**
Dermoid cysts are very rare in head and neck area, estimated 7% of all dermoids\(^4\) and its presence in postauricular region is further exceptionally rare. We found only few case reports in English literature citing postauricular dermoid.\(^1\)\(^2\)\(^3\) However, the dermoid cysts have also been reported in the auricle,\(^5\) middle ear,\(^4\)\(^6\) and in the auriculotemporal area.\(^7\)

Dermoid cysts are congenital anomalies that arise from trapped pouches of the ectoderm near the normal fold or from the surface ectoderm that has failed to separate from the neural tube. The parthenogenic theory for its pathogenesis suggests that dermoid cysts take their origin from primordial germ cell.\(^8\) Meagher et al suggest the cause for the bilateral prominent ears due to dermoid cyst is multifactorial with certain strong familial predilection.\(^1\)

Patients with postauricular dermoid cysts usually seek medical advice for the cosmetic reasons because of the embarrassing look of the prominent unilateral or bilateral ears. In our report, the patient came to us for the very same reason i.e. correction of postauricular swelling. Gross picture of the cut section of the cyst indicated the diagnosis of dermoid cyst, which was confirmed on microscopic examination by the presence of stratified squamous epithelium, sebaceous glands and numerous hair follicles with hair shafts.

To conclude, if dermoid cysts are diagnosed early and treated with complete surgical excision, the prognosis is good, and no further complications are expected.
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