



## POST AURICULAR DERMOID – A RARE CASE REPORT

## Otorhinolaryngology

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## ABSTRACT

Dermoid cysts are mainly located in the midline of the body such as root of the nose, oral cavity and around orbit. They constitute mainly 7% of occurrences in head and neck region. Dermoid cysts are rare in and around the auricle. We are delineating a case of a huge post auricular dermoid in a 24 year old male which is treated successfully by surgical excision.

## KEYWORDS

Dermoid cyst, Post auricular dermoid, Surgical Excision.

## INTRODUCTION

Dermoid cysts are mainly congenital lesions, occurring in midline and seen in childhood. Dermoids contain both mesodermal and ectodermal components and consequently may have hair follicles, sweat gland, smooth muscle and sebaceous tissue, in addition to their squamous epithelial lining<sup>1</sup>. Most dermoids have a sinus tract exiting via a minute skin opening along the nasal midline.

These are slow growing asymptomatic solitary masses, present from birth and present mainly along the midline<sup>2</sup>. Although mostly benign, dermoids have been shown to have a component of endodermal sinus tumour in children and squamous cell carcinoma in adults.

Dermoid cyst of the auricle is very rare. We treated the patient with an auricular dermoid cyst.

## Case Report

A 25 year old male reported to the ENT OPD with a 5 year history of swelling in the right post auricular area. The swelling was of pea size initially and gradually increased to pineapple size in the post auricular area in a span of 5 years. Swelling was present since birth but had gradually increased in size over the past 5 years till present size.

The patient also complained of intermittent pain in the post auricular area since 1 year. The pain radiated to preauricular region and temporal region at times. There was no family history. There was no history of trauma or bite. There was no associated hearing complaints or any other birth anomalies.

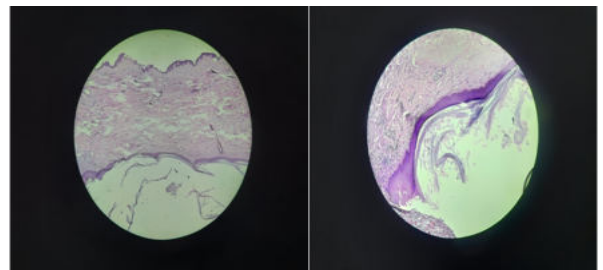
On examination a swelling of 6\*4 cm size was seen in right post auricular area. The swelling extended from tip of right helix to lobule. The swelling had variable consistency. It is soft and firm in most places but at few places it is hard in consistency. Swelling was ovoid in shape, non tender, mobile mass, non compressible with no local rise in temperature with no overlying skin changes.

FNAC was advised which showed benign squamous degenerated cells and keratinous material in a background of cellular debris

A provisional diagnosis of Dermoid was made. USG revealed a solid, hyperechoic, well defined lesion of 5.6\*4\*2 cm in size, spherical, non pulsatile extending from the highest attachment of pinna to the mastoid tip with smooth surface obliterating the retroauricular sulcus.

The patient was planned for Excision of post auricular dermoid cyst under General anaesthesia. The excised mass was sent for histopathological evaluation. Gross examination revealed a well circumscribed, solid oval mass, with a firm consistency and a yellowish surface. [Figure No A&B]. H&E stained sections show a cyst lined by squamous epithelium with a granular layer. The cyst

contains keratinous materials. Surrounding tissue shows mild to moderate inflammation. Procedure was uneventful and after 3 months of follow up patient was absolutely stable and symptom free.



**Figure A&B** showing cyst lined by squamous epithelium with a granular layer containing keratinous materials. (H&E A- 40X; B – 100X)

## DISCUSSION

Dermoid cysts are basically congenital cysts mainly present in midline. It can be distinguished from a simple epidermal cyst by the presence of all skin elements. Dermoids contain both mesodermal and ectodermal components and so may have hair follicles, sweat gland, smooth muscle and sebaceous tissue, in addition to their squamous epithelial lining. Dermoid cysts arise because of entrapment of ectodermal tissues of the first and second branchial arches during fetal development especially along the lines of fusion<sup>3</sup>. Hence they are located along the midline in the neck. It can also form after trauma due to implantation of epithelium into mesenchymal tissue.

A dermoid cyst in the post auricular area may have arisen on the dividing line between the squamous part of the temporal and parietal bones<sup>5</sup>. Congenital dermoid cysts in the auricular area are considered to be very rare.

Dermoid cysts can be classified into 1. Epidermoid cysts which are lined with simple squamous epithelium with or without keratinous material inside. 2. True dermoid cyst are also lined with simple squamous epithelium but have skin appendages such as hair, hair follicles, sebaceous glands and sweat glands. 3. Teratoid cysts which are lined by squamous or respiratory epithelium and contains all three embryological remnants of ectoderm, endoderm and mesoderm like nails, teeth, brain, muscle, cartilage, bone and glandular tissue<sup>6</sup>.

New and Erich classified dermoid cysts of head and neck into 4 types. 1. Cysts in the eyes and orbits. 2. Nose area. 3. In floor of mouth, submental and submaxillary regions. 4. Miscellaneous group<sup>7</sup>.

Most of the lesions tend to be perceived in childhood. however due to its asymptomatic nature and patients being unable to see them in their

own auricular area, tend not to complain of pain due to them<sup>8</sup>. Therefore these cysts take longer to be noticed than other benign tumours.

They are slow growing mainly asymptomatic masses, can cause symptoms due to compression of neighbouring structures<sup>9</sup>.

Diagnosis is made on clinical features. USG and FNAC can be done to confirm the diagnosis<sup>10</sup>. CT scan or MRI may be required to know the extent of lesion and plan a surgical approach.

Surgical excision is the treatment of choice.

### CONCLUSION

Dermoid cysts are rare in craniofacial regions and post auricular cysts are extremely rare. They are mainly asymptomatic and surgical excision is required for cosmetic reasons. Clinically it can be easily diagnosed on the basis of location and consistency. CT scan may be indicated to know the extent of the lesion. Histopathological confirmation is a must to rule out any other malignant pathology.

### Images With Legends



Preoperative picture of huge dermoid in postauricular area.



Intraoperative picture of excision of Dermoid through post auricular approach



Specimen of Dermoid cyst after Excision

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