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Case Report

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Large Post Auricular Epidermal Inclusion Cyst Involving Facial Nerve-A Rare Case Report

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ABSTRACT

Epidermoid cysts represent most common benign, cutaneous cysts. Most frequently was seen on face, scalp, and trunk. It accounts for approximately 80% of follicular cyst of skin. Epidermoid cyst usually remains asymptomatic until it gets secondarily infected. Malignant changes are seen very rarely. We describe a case of the huge post auricular epidermoid cyst, which was encased extra-temporal part of the facial nerve and was in close proximity to external carotid artery. The cyst was excised surgically and histopathology confirmed the diagnosis of epidermoid cyst.

Key-words: Epidermoid cyst, Fine needle aspiration cytology, FNAC, Post-auricular cyst

INTRODUCTION

Fourteen years old male patient presented with a complaint of swelling behind right ear in ENT department SGT Medical College and Hospital Gurgaon, Haryana in May 2018. On the basis of clinical examination, FNAC findings and CT scan findings, diagnosis of epidermal inclusion cyst was made. With the diagnosis of epidermal inclusion cyst patient planned for excision of the cyst under general anesthesia. During surgery Lower part of the cyst was found adherent to facial nerve, cyst was dissected carefully to avoid any damage to the nerve sheath. Post-operatively histopathological examination of cyst confirmed the diagnosis of epidermal inclusion cyst. Epidermal inclusion cyst is a benign cystic lesion which usually occurs due to proliferation and implantation of epidermal elements within a circumscribed space in the dermis [1]. Epidermal cysts of post-auricular region are rare, with few cases described in the literature.

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They should be differentiated from lipoma and haemangioma. Lipomas are benign tumors which composed of fatty tissues and hemangiomas are often present at birth [2].

CASE REPORT

Fourteen years old male patient presented with a complaint of swelling right post auricular region for 4 months. Initially, it was small in size and increased gradually to reach the present size of 4x3 cm. It was painless and not associated with any other symptoms. No familial history suggestive of similar swellings.

On examination, the swelling was about 4 x 3 cm, soft to cystic in consistency, non-tender, non-pedunculated and partly mobile, skin over swelling normal, no rise of regional temperature, no regional lymph node involvement. There was no discharging sinus or pointing abscess. Pinna, external auditory canal, tympanic membrane, and facial nerve on the right side were absolutely normal. On the basis of clinical examination, differential diagnosis of swelling included epidermoid cyst, sebaceous cyst, lipoma, dermoid cyst and neurofibroma. Fine needle aspiration cytology suggestive of epidermal inclusion cyst (sebaceous cyst or epidermoid cyst), contrast-enhanced CT (CECT) neck was done to know the extent of cyst interiorly, inferiorly and to rule out the intracranial extension.

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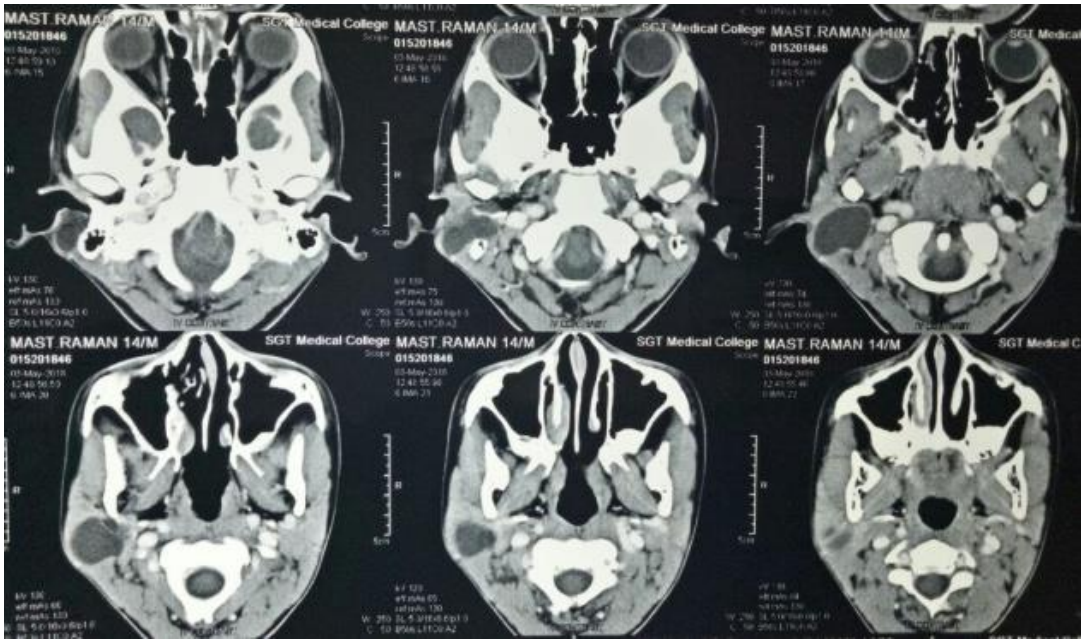

Fig. 1: NCCT Temporal bone axial cuts

With the diagnosis of epidermal inclusion cyst, the patient was planned for complete surgical excision of mass under general anaesthesia. The Swelling had well-defined cyst wall and contained foul smelling soft cheesy material with the characteristic cheesy smell. Intra-operatively Lower part of the cyst was found adherent to the facial nerve, the cyst was dissected carefully to avoid any damage to the nerve sheath.

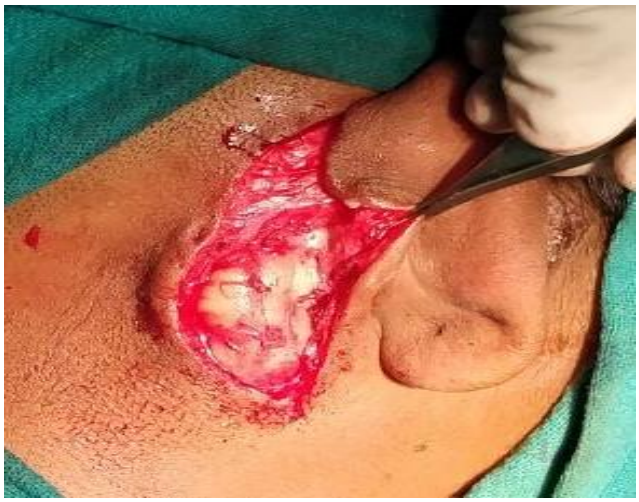

Fig. 2: Intra-operative pictures showing anterior, upper extent of the cyst

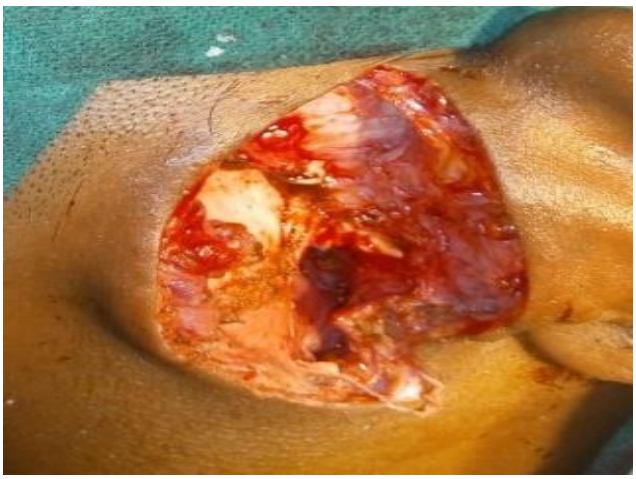

Fig. 3: Intra-operative pictures showing anterior, lower extent of the cyst

Excised mass sent for histopathological examination.

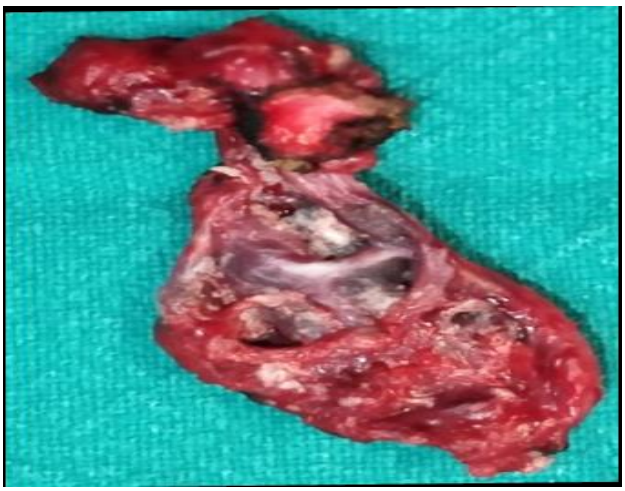

Fig. 4: Gross appearance of dissected cyst

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The macroscopic picture consists of cystic bag with soft cheesy material and microscopic picture consist of stratified squamous epithelium with the presence of numerous keratin flakes and underlying thin connective tissue capsule with collagen bundles and blood vessels. Histopathology confirmed the diagnosis of epidermoid cyst.

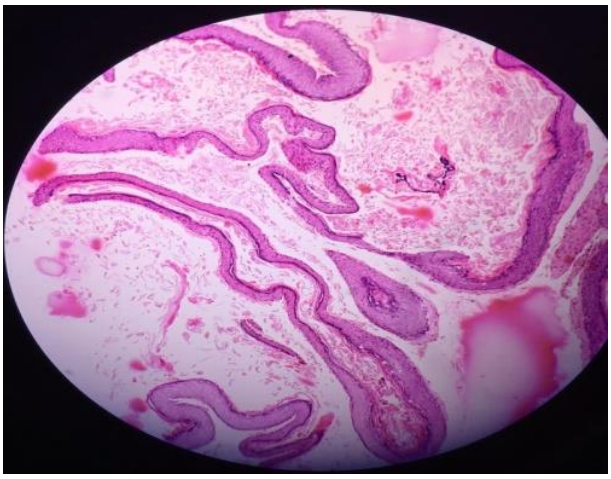

Fig. 5: Microscopic picture shows epithelial lining with keratin flakes

DISCUSSION

The epidermal inclusion cyst is a benign cystic lesion, which usually occurs due to proliferation and implantation of epidermal elements within a circumscribed space in the dermis [1]. Epidermal cyst is also called sebaceous, keratin cyst, epithelial cyst or milia or epidermal inclusion cyst, usually formed by the incorrect migration of remnants of ectodermal tissue during embryogenesis or by traumatic and surgical implantation of epithelial components [3]. The epidermoid cyst can occur in any part of the body but commonly involve face, scalp, neck and trunk [4]. Commonly occurs in 3rd and 4th decades of life with slight male preponderance [5]. The epidermal cysts are usually asymptomatic but sometimes due to secondary infection, they become inflamed. Malignant changes are rare and include epidermal cell carcinoma, Bowen's disease, and melanoma *in-situ* [6].

Epidermal cysts of post-auricular region are rare, with few cases described in the literature. They should be differentiated from lipoma and haemangioma.

Lipomas are benign tumors which composed of fatty tissues and hemangiomas are often present at birth [2].

We are reporting this case because huge post auricular cyst with uncommon age of presentation (14 years), most common age of presentation of epidermoid cyst is 3rd and 4th decades [5]. Cyst was adherent to the facial nerve and was in close proximity to carotid which is again a rare presentation. The lesion was excised without damaging the facial and no recurrence was seen in 6 months post-operative period.

CONCLUSIONS

Cystic swelling in post auricular region may involve the facial nerve anteriorly so that while operating we should be very precise to preserve the facial nerve.

CONTRIBUTION OF AUTHORS

Research concept- Preeti Singh, Vishal Pathania
Research design- Preeti Singh, Vishal Pathania
Supervision- Vishal Pathania
Data collection- Preeti Singh, Vishal Pathania
Data analysis- Preeti Singh, Vishal Pathania
Final approval- Preeti Singh

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