

## **Giant Epidermal Cyst in the Anterior Neck Developing Over 35 Years**

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**Abstract:** Epidermoid cyst is a intradermal swelling. It is a common benign swelling of the skin. Conventionally epidermoid cysts are generally small, slow-growing, non-tender, dome-shaped lesions. Giant epidermoid cysts reaching size of more than 5 cms is rare. Giant epidermal cysts have rarely been reported in literature. Herein we report a case of giant epidermoid cyst in the neck which grew to an extremely large size in for >35 years without inflammation or rupture. The patient had developed social anxiety and depression due to the cosmetic consequences of the large mass. Diagnosis was made based on the clinical examination, FNAC and computed tomography scan. Patient underwent surgical excision of the mass. There was no local recurrence after 1 year follow-up period and psychiatric symptoms resolved.

**Keywords:** Epidermoid cyst, FNAC, Anterior triangle, Computed tomography scan.

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### **INTRODUCTION**

Epidermoid cyst is the most common cyst of the skin. It usually occurs in hair-bearing skin areas like scalp, face, neck, back, trunk [1]. Epidermoid cyst is synonymous with keratinous cyst. It usually presents as small, mobile, painless slow growing swelling. A giant epidermal cyst is defined as an epidermal cyst of more than 5 cms. It is usually asymptomatic until it is infected or enlarges to an extent to cause compressive symptoms on the surrounding anatomical structures. A number of cases of giant epidermal cysts have been previously reported in literature [2, 3]. However few cases of giant epidermal cysts in neck have been reported previously. Hence we present a rare case of giant epidermal cyst in the anterior triangle of the neck which grew to an extremely large size over >35 years without inflammation or rupture causing social anxiety and depression in the patient. Informed consent was obtained from the patient.

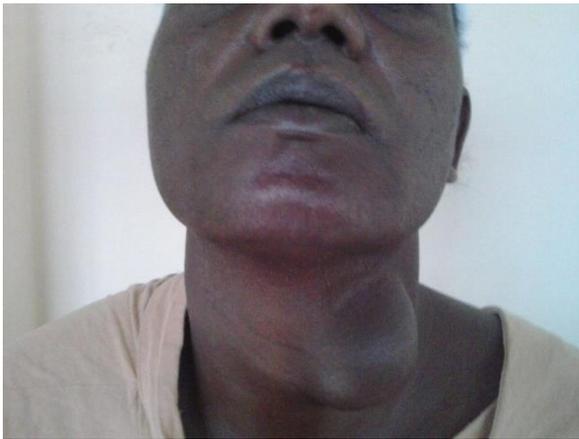
### **CASE REPORT**

A 45 year old male patient presented to Adichunchanagiri institute of research and medical sciences with history of swelling in the left side of neck for more than 35 years (Fig. 1). Swelling was painless and had gradually increased to the present size. There was no history of trauma or previous neck surgeries. Patient had discomfort due to size of the swelling. Patient had also developed social anxiety and depression due to negative cosmetic consequences of the large mass. On examination there was a single, soft, mobile, non-tender swelling measuring 7x5x4 cms in left anterior triangle extending horizontally 1 cm from

left of the midline to the anterior border of left sternocleidomastoid and vertically from 2cm below the angle of mandible to 2 finger breadth above the clavicle. Skin over the swelling had no dilated veins and no punctum. Transillumination test was negative. Benign neoplasm like lipoma or dermoid was suspected.

FNAC showed a nucleatesquames against a background of keratinous debris suggestive of epidermoid cyst. Computed tomography scan revealed a well defined cystic lesion measuring 7x5x4 cm in the subcutaneous plane of the anterior triangle of the neck on the left side (Fig. 2). The lesion was abutting the sternocleidomastoid muscle posteriorly, the left strap muscles medially and left submandibular gland superiorly. Multiple airlocules were noted within the lesion (secondary to FNAC procedure).

Surgical excision was done. Swelling was found to be in subcutaneous plane. Swelling was well encapsulated and was dissected posteriorly from sternocleidomastoid. However due to longstanding nature of the swelling, it was difficult to dissect it from the surrounding structures. Swelling was completely excised (Fig. 3). Postoperative histopathological examination confirmed the diagnosis of epidermoid cyst. Patient had no recurrence postoperatively in 1 year follow-up period (Fig. 4) and psychiatric symptoms of anxiety and depression completely resolved.



**Fig. 1: Giant epidermoid cyst in the left anterior triangle of the neck**



**Fig. 2: Plain Computed tomography scan of the neck axial view showing well defined cystic lesion in the subcutaneous plane of the left anterior triangle of the neck**



**Fig. 3: Showing excised specimen consisting of single, globular, cystic mass with smooth grey brown surface**



**Fig. 4: A photograph at the 1 year postoperative follow-up period showed no recurrence and excellent cosmetic results.**

## DISCUSSION

Epidermal cyst or sebaceous cyst is most common benign cystic swelling of the skin. However giant epidermal cysts exceeding 5cms are rare. Giant epidermal cysts occurring in the neck, such as in our case have rarely been reported in literature.

Epidermoid cyst can occur in face, scalp, neck and trunk, scrotum, ear lobe, breast. Rarely, they occur in acral surfaces such as palms and soles due to traumatic implantation of epidermis into the dermis.

The epidermal cyst can arise due to duct obstruction of a sebaceous gland following infection and inflammation, developmental defect of the sebaceous duct or deep implantation of epidermal cells resulting from blunt penetrating injury or previous surgery [1, 2]. Though trauma is an important etiological factor there was no history of trauma in our patient. However due to long duration of swelling patient might not have been able to recall the trauma.

A giant epidermal cyst rarely occurs in the neck. The swelling was initially clinically diagnosed as branchial cyst or benign soft tissue neoplasm like lipoma or dermoid. Further the central black punctum which is hallmark of epidermal cyst was not observed in our patient. This made the clinical diagnosis of epidermal cyst more difficult. Punctum in giant sebaceous cyst is difficult to detect because as the swelling enlarges, more and more hair follicles overlying it make it difficult to detect the punctum.

Epidermal cyst can rupture due to infection or pressure on the overlying skin leading to thinning and necrosis of skin. Giant epidermal cyst can compress adjacent organs, including major arteries, veins and nerves [2, 4]. Giant masses can cause cosmetic problems due to high visibility in head and neck which

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may lead to psychiatric symptoms like anxiety and depression as in our case.

In a proliferative epidermal cyst there is epithelial proliferation from cyst wall towards the lumen and it has low grade malignant potential [5]. These are locally aggressive tumours. Squamous cell carcinoma, basal cell carcinoma, mycosis fungoides and melanoma rarely arise from giant sebaceous cyst [6, 7]. Our patient had no evidence of malignancy.

## CONCLUSION

Giant epidermoid cyst in the neck is rare. Histopathological examination is necessary to confirm the benign nature of the swelling. Surgical excision is the treatment of choice.

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