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## Large sebaceous cyst of gluteal region: A case report

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### Abstract

Giant epidermal cyst is defined when the size of the cyst exceeds 5 cm. Giant epidermal cysts are rare and have a propensity to develop malignancy. We reported a case of large sebaceous cyst in 56 year old female patient over gluteal region.

**Keywords:** Epidermal cyst, gluteal, sebaceous

### Introduction

Epidermal cysts, also called as sebaceous cyst is a unilocular retention cyst containing keratin. It commonly occurs on the face, trunk, neck, scalp, scrotum, earlobe and breast and can vary in size from a few millimeters to less than a few centimeters. Giant epidermal cyst is defined when the size of the cyst exceeds 5 cm. Giant epidermal cysts are rare and have a propensity to develop malignancy<sup>[1]</sup>.

At the present time, MRI with and without contrast is the preferred imaging modality for evaluation of the soft-tissue epidermal inclusion cysts<sup>[2]</sup>. Most of the complicated, ruptured, epidermal inclusion cysts have septa, show irregular thick enhancement, and are associated with fuzzy enhancement of the surrounding subcutaneous soft tissues<sup>[3]</sup>. The differential diagnosis includes an epidermal inclusion cyst, ganglion cyst, neurogenic tumor, myxoid tumor, nodular fasciitis, and dermatofibrosarcoma protuberans. Malignant degeneration to squamous-cell carcinoma is rare, reported to be 2.2%<sup>[4]</sup>. The present study reported a case of large sebaceous cyst in 56 year old female patient over gluteal region.

### Case report

A 56 year old female patient visited the department of general surgery with large swelling in gluteal region since 1 year. History revealed that swelling started 2.5 year back as small size which gradually increased to attained large one. Patients underwent excision of the swelling 1.4 months back from surgeon. Similar swelling in same location recurred after 6 months for which patients visited our department. There was no pain or discharge associated with the swelling. The swelling had gradually increased in size.

Past medical history found to be non contributory. Clinical examination of the swelling revealed a soft cystic painless swelling over the right gluteal region (Figure 1, 2). Patients underwent fine needle aspiration cytology. Excision of the swelling was done with local flap mobilization (Figure 3).

Histopathology of the specimen revealed cyst with stratified squamous epithelium lining containing keratin (Figure 4). No malignant change was reported on histopathology. Based on history, clinical examination, histopathology a final diagnosis of sebaceous cyst was made. Patient is on regular follow up.

### Discussion

Epidermal inclusion cysts occur as a result of migration of the epidermal cells into the dermis. They are lined with stratified squamous epithelium and contain keratin<sup>[5]</sup>. Epidermal cysts are generally small; solitary present on the face; trunk; neck and scalp. The overlying skin almost always shows a punctum. Inherent to all soft-tissue epidermal inclusion cysts is the migration of epidermal cells into the dermis. In the dermis, the epidermal cells proliferate, collecting debris and keratin, leading to the formation of the cystic space<sup>[6]</sup>. These cysts have a tendency to rupture before the patient seeks medical care, and can lead to a foreign-body giant-cell reaction,

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potentially causing the formation of a granuloma [7].

Currently, there is no definitive understanding of how epidermal inclusion cysts actually develop; however, a few theories are documented in the literature [8]. The first theory is based on aberrant embryogenesis, with ectodermal cells misplaced during cellular differentiation. Another theory suggests that epidermal cells are transplanted into the dermis following trauma to the area, such as an injection. This theory is frequently used to explain cysts on the extremities. In another common theory, pilosebaceous structures become inflamed, leading to a cystic reaction in the dermis. This theory is typically used to explain the presence of cysts on the face, neck, and trunk. The final theory links lesions that appear only on the palms of the hands and soles of the feet to an infection of eccrine ducts with Human Papilloma Virus 60 [9].

Typically, epidermal inclusion cysts are small and slow-growing, frequently referred to sebaceous, epithelial, or keratin cysts. They are the most frequently encountered epithelial cysts found on clinical examination. These lesions are commonly found on the face, scalp, neck, and trunk, with only 10% of the cases involving the extremities. In patients with multiple epidermal inclusion cysts, the physician should be keen to exclude a gastrointestinal neoplasm, due to the association with Gardner syndrome [10]. Up to 53% of patients with Gardner syndrome have epidermal inclusion cysts, in addition to intestinal polyposis, osteomas, and thyroid nodules.

Absence of hair on a large cyst over scalp differentiates it from a dermoid cyst. Punctum in a large sebaceous cyst is difficult to detect or absent, as more and more hair follicles overlying it getting stretched as the swelling enlarges, makes it difficult to be detected [11].

Giant epidermal cysts are rare clinical curiosities, more likely to develop into complications including malignancy. Treatment of a sebaceous cyst is its total excision along with capsule. We have presented a rarely encountered case of a giant epidermal cyst over the gluteal region where a total excision was performed [12].



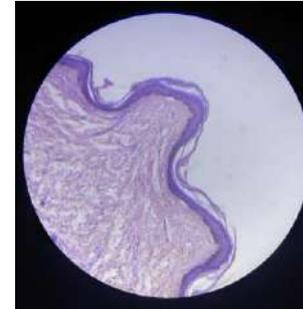
**Fig 1** Sebaceous cyst on gluteal region



**Fig 2:** Pre-operative photograph showing sebaceous cyst on gluteal region



**Fig 3:** Post operative



**Fig 4:** Histopathology

### Conclusion

An epidermal inclusion cyst is a frequently encountered benign, cystic mass of the dermis. Even though malignant degeneration is rare, it is important for the physician to exclude malignancy in cases of giant lesions.

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