### Case Report

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## Multiple epidermal cysts of the scrotum: a rare case report

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#### **ABSTRACT**

Multiple epidermal cysts over the scrotum is a rare condition and requires surgical intervention if infected or cosmetically unacceptable. Grossly enlarged cysts require complete excision, followed by scrotoplasty. We are reporting a case of multiple epidermal cysts on the scrotum. Complete excision of the cysts followed by scrotoplasty was done in this case.

Keywords: Complete excision, Multiple epidermal cyst, Scrotoplasty

#### INTRODUCTION

Epidermoid cysts are the most common benign epithelial cysts. They are well encapsulated cyst and histologically characterized by a cystic lining of stratified squamous epithelial cells and no cutaneous adnexal structures in the stromal tissue.<sup>1</sup>

They are generally devoid of malignant potential. These occur commonly in hair- bearing areas mostly on the scalp, also on the face, neck, back, and scrotum.<sup>2</sup>

They are filled with sebaceous and keratinous masses and containing elements of hair follicles. Multiple epidermoid cysts of the scrotum forming multi-segmental and multi focal tumors of long term course are often hereditary. The diagnosis is based on appearance of the change. The gold standard treatment for epidermal cyst is complete excision of sac and its contents.<sup>3</sup> When the cyst wall is not removed, recurrence can occur.

As follicular disruption is important in the pathogenesis of many epidermoid cysts, multiple epidermoid cysts may occur in individuals with a history of significant acne vulgaris. Multiple scrotal cysts may lead to scrotal calcinosis via dystrophic calcification.<sup>1</sup> Non-inflamed epidermoid cyst is usually asymptomatic. Rupture of the cyst wall can result in an intensely painful inflammatory reaction, and this is a common reason for presentation to a surgeon. Development of a basal cell Carcinoma or squamous cell Carcinoma within an epidermoid cyst is a very rare event.<sup>1</sup> A surrounding inflammation may be seen as evidence of prior rupture. The first cases of the epidermoid cyst were presented by Dockerty and prestly in 1942. Here, we present a case of multiple epidermoid cysts of scrotum managed with complete excision of the cysts followed by scrotoplasty.

#### **CASE REPORT**

A 36-year-old male presented to the surgical outpatient department of Saveetha Medical College and Hospital, Chennai, Tamil Nadu, India with multiple painless swellings over scrotum since last 2 years duration.

On examination, multiple swellings were found arising from scrotal skin, which were non-tender and firm in consistency. The findings were consistent with a diagnosis of multiple epidermal cysts of scrotum. Then, the patient was advised for surgery. All the cysts were removed (Figure 1) under spinal anaesthesia, and specimen was sent for histopathological examination. The pathology revealed cyst of a sharply limited wall of the connective tissue lined with the cornifying squamous epithelium, and inside the cyst there were desquamated, keratinized cells of the squamous epithelium with multifocal calcifications.



Figure 1: Multiple epidermal cysts of scrotum.

Postoperative period was uneventful and he recovered well. During the follow-up visits 2 weeks after the surgery, apart from the scar, no other pathological symptoms were observed.

#### **DISCUSSION**

An epidermal cyst a small, dome-shaped cyst that develops in the skin, filled with a thick, greasy, cheese like substance.<sup>4</sup>

It is mostly found on the scalp, the face and the back, however, in the urological spectrum it often occurs in testes or on the skin of the scrotum.<sup>5</sup> It is characterized histologically by the cyst lining of stratified squamous cells and loosely packed lamellae of keratin debris, cholesterol and water.<sup>5</sup> The pathogenesis of the epidermoid cyst is not precisely known, but there are different theories about the embryonic origin of this lesion.<sup>6</sup> They arise from the ectopic cutaneous tissue due to dislocation of this tissue in to the neighboring area. They are the end results of the monolayer teratoma from germ cells.

They occur due to a traumatic implantation of the epidermal tissue in to the dermis and the subcutis. However, in the case of the extra-testicular scrotal

epidermoid cyst, they are believed to be an abnormal closure or the associated degenerative process of the median raphe and the urethral groove. The deeply located scrotal steatocystomas can suggest tumors of the testes, however, well performed ultrasonography excludes their presence unequivocally. When noninflamed scrotal cysts are evaluated, they show the typical features of an epidermoid cyst. Mixed cysts may be slightly more common on the scrotum. A complete removal of the cyst is the only choice of treatment for epidermal cyst of scrotum.

#### **CONCLUSION**

Multiple sebaceous cysts over scrotum is a rare condition but should be promptly treated to avoid complications like infection and its fatal sequels such as fournier's gangrene.

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