

# A Huge Penile Mass Which Turned Out to Be an Epidermoid Inclusion Cyst

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## INTRODUCTION

Congenital epidermoid cysts may form along the median raphe of the penis on the penile shaft or the glans.<sup>(1)</sup> Epidermal inclusion cysts may develop after circumcision, repair of hypospadias, or other types of penile surgery when islands of epithelium are left behind in the subcutaneous tissue. These cystic lesions should be treated by simple excision.<sup>(1)</sup> In the present study, we report a huge, firm, disfiguring, distal penile mass in a 21-year-old man which turned out to be an epidermoid inclusion cyst.

tract infection, hematuria, or dysuria. He had been circumcised during the first year of his life.

On physical examination, a mass sized about 5 cm in diameter was palpable which was firm, nontender, and nonmobile with a smooth surface. The penile skin overlying the lesion was intact and mobile. There was no sign of inflammation including erythema, warmth, or urethral discharge. No inguinal lymphadenopathy was detected, either.

Ultrasonography revealed a 5 × 4 × 3-cm heterogeneous mass that appeared to be of extracorporeal

## CASE REPORT

A 21-year-old man presented to our clinic with an asymptomatic slow-growing soft mass of the distal part of the penis (Figure 1). The mass had been growing slowly within the past 8 years before diagnosis. The patient's reason of presentation was correction of his significant penile deformity before his marriage. The patient did not have painful erections and denied any history of sexual intercourse, trauma, inflammation, urinary



**Figure 1.** A huge firm disfiguring distal penile mass was noted on physical examination.

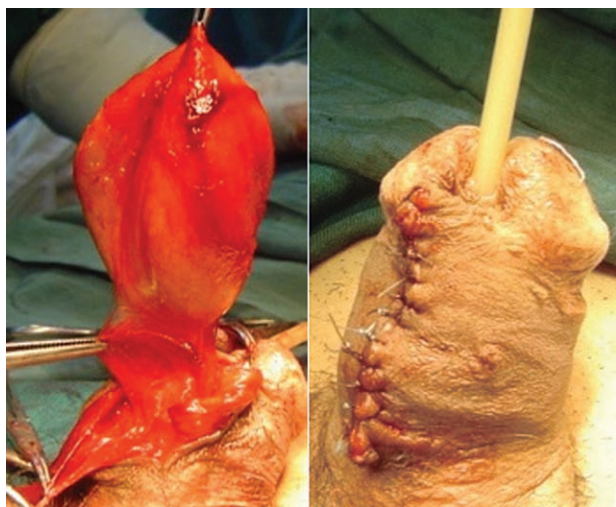
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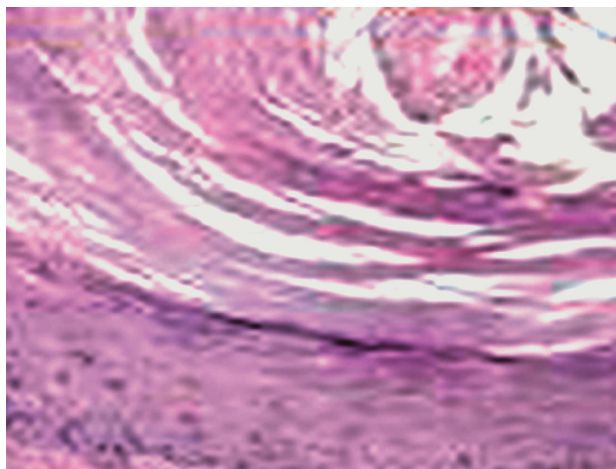
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origin. It had distorted both corpora without invasion.

The patient underwent complete resection of the mass under spinal anesthesia. After incision of the skin, dissection was performed down to the Buck's fascia and meticulous dissection was done around the mass. After careful dissection, the smooth capsule of the tumor was incised and the tumor was enucleated from the surrounding tissues. There was no clear stalk. The mass essentially "popped" out of the bed of resection. After excision of the lesion, the dartos muscle and skin were closed by 4-0 and 3-0 vicryl sutures, respectively (Figure 2). The diagnosis of epidermoid inclusion cyst of the penis was



**Figure 2.** Left, Good plane of cleavage around the mass. Right, Reconstructed penis after removal of the mass.



**Figure 3.** Pathologic examination of the dissected mass confirmed the epidermoid inclusion cyst of the penis (hematoxylin-eosin,  $\times 10$ ).

made by pathologic examination (Figure 3). Two months after the surgery, the patient had normal erectile function and was satisfied with the cosmetic results of the operation. He was followed up for 2 years, and no recurrence was noted.

## DISCUSSION

Epidermal cysts are benign tumors that may arise from the infundibular part of the hair follicles. They form spontaneously or subsequently to trauma. These cysts are not common in the penis and those found in this area are usually congenital with unknown etiology.<sup>(2,3)</sup> Some authors believe that it may develop from abnormal closure of the median raphe during embryogenesis.<sup>(4-6)</sup>

Penile epidermoid cysts are diagnosed by a careful examination accompanied by ultrasonography and/or computed tomography. Some differential diagnoses include dermoid cyst, teratoma, and urethral diverticulum.<sup>(4)</sup> They often contain keratin, while a dermoid cyst contains skin and its appendages, and a teratoma contains derivatives of other germ cells.<sup>(4)</sup> Neoplastic transformation of the epithelium of epidermoid cysts has been reported rarely but not in penile cases.<sup>(7)</sup>

The best treatment of penile epidermoid cysts is total excision.<sup>(2,8)</sup> We excised the lesion and did not note local recurrence or any findings of malignancy in our patient after 2 years of follow-up. Similar results have been reported by other surgeons.<sup>(2,4)</sup> However, although malignant transformation of epidermoid cysts is very rare, they should be followed up for a long time after complete removal.

## CONFLICT OF INTEREST

None declared.

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