

Multiple Epidermoid Cyst on Frenulum and Ventral Preputium of the Penis: A Case Report

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Abstract. Penile epidermoid cyst are uncommon cases and more rare with a multiple cyst on the penile. We presented a twelve-year-old male patient with a case of 1 month growing, mobilized, non-tender frenulum and ventral preputium of the penis mass. Circumcision and total excision was performed under local anesthesia. Pathological examination was revealed as epidermoid cyst. Observation was carried out on the patient, first control the patient has a recurrent nodule grew only on the frenulum and aspiration was carried out and administration of antibiotics and corticosteroid was given, second control patient came to complete recovery.

Keywords: epidermoid cyst, penis

Introduction

Epidermoid cysts are uncommon cysts that can develop in any part of the body and only a small number of cases have been reported. Epidermoid cysts of the penis can be commonly found in pediatric patients.

Case Report

A 12-year-old boy came to the clinic accompanied by his parents with an asymptomatic, slowly growing penile nodule (approximately 1 month ago, initially, the lumps felt small and then got bigger over time.). On examination found mobile, elastic, and painless firm multiple mass on the penile frenulum and prepuce ventral penile region measuring 0.6 x 0.5 x 0.2 and 0.5 x 0.5 x 0.2 cm. Both of the mass was freely moveable within the dermis and had a skin surface. The medical

history including urinary tract infection, dysuria, hematuria, trauma was denied from the patient. Blood examination was conducted for kidney function was otherwise normal, as well as urinalysis and urine culture. Excision of the mass was performed under local anesthesia, circumcision of the prepuce was required to complete excision on the prepuce nodule and on the penile frenulum nodule aspiration of cyst was conducted before the total excision was done. Macroscopically, the cut surface of the mass appeared full of cheesy material, hair, a clear jelly-like material and both cytology and culture gave negative results. Pathology report of the specimen the diagnosis of Penile Epidermoid Cyst (atheroma) (Fig. 1).

Microscopically, the specimen revealed that the cyst was lined with stratified epithelium squamous and contains keratinized material which is arranged in lamellar structure (Fig. 2). In addition, there is no infiltration of epithelium in connective tissue and basement membrane. Observation monitoring was

carried out on the patient, first control the patient a recurrent nodule grew on the frenulum and aspiration was carried out (Fig. 3). Administration of antibiotics and corticosteroid as prophylaxis against further infection and the second control patient came with complete recovery.



Figure 2. Clinical appearance of penile epidermoid cyst in the frenulum of the penis (A&B)

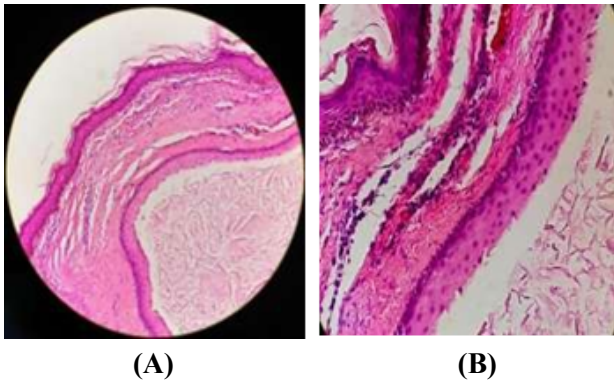


Figure 2. Histopathological view of the specimen (H&E); A. 10x magnification, B. 40X magnification)



Figure 3. Photograph showing first control the patient a recurrent nodule grew on the frenulum

Discussion

Penile epidermoid cyst are rare cases and a small number of cases have been reported, although the etiology is unknown, it is suggested this condition in children is usually congenital due to abnormal embryologic closure of the median raphe [1]. Considering the location, the lesion in our report might come from the median raphe because it is on the ventral frenulum penis. Criteria that proposed for the diagnosis by Khanna [2], there should be (i) surrounded by penile tissue, (ii) filled with keratin only, (iii) lined with surrounding fibrous connective tissue and (iv) with an inner lining of stratified squamous epithelium and without dermal appendages. The described case does not appear to fit the diagnosis, the authors founds a cyst lined by stratified epithelium squamous but it contained cheesy material, hair and clear jelly-like material, and classified it as congenital cyst of the penis of epidermoid type [3].

Penile cyst occurs in various sizes, but they are usually solitary. In our case it is multiple cyst and the cyst did not communicate with the urethra and did not affect urination, but circumcision was done for total excision. It is rare, the extension of a cyst into the pelvis has been reported.

Many authors have reported that epidermal cyst in penile very rarely turns malignant [4]. In such cases, MRI is the most useful modality for depicting the margin of the lesion [5]. Aspiration is not recommended because it carries a risk of recurrence, in our case the author performed aspiration on the frenulum cyst in first control but the recurrence does not occur [6]. In treatment for an epidermoid cyst simple excision has been regarded as the best treatment procedure and prevents the secondary infection [7]. In our case administration of antibiotics and corticosteroid for the prophylaxis infection, proper foreskin hygiene, including retraction and routinely cleansing result in complete recovery.

Conclusion

Epidermoid cyst of the penis is relatively rare. It may appear solitary or multifocal. Management must be given during examination to rule out another entity. Complete excision is the best treatment based on pathology examination and may lead to the risk of recurrence.

Conflict of interest

The authors declare that they have no conflict of interests.

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