

## **Case Report**

### **PENILE CYSTS IN PEADIATRIC PATIENT: A CASE REPORT'**

**\*Sumit Kar, Ajay Krishnan and Atul Mohankar**

<sup>1</sup>*Department of Dermatology, Venereology and Leprosy, MGIMS, Sewagram, Wardha, Pin: 442102*

<sup>2,3</sup>*Department of Dermatology, Venereology and Leprosy, MGIMS, Sewagram, Wardha, Maharashtra-442102*

*\*Author for Correspondence*

#### **ABSTRACT**

A case of a 12 year-old boy with two fluid filled lesions of the penis for the last 10 years was reported. He had an asymptomatic, slowly growing soft swelling in the frenulum of the penis. Excision of the lesion was performed, and the diagnosis was made as epidermoid cyst of the penis. The patient was followed up for 6 months with no history of recurrence.

#### **INTRODUCTION**

Penile epidermoid cysts are congenital and uncommon in occurrence. The etiology is unknown but it may represent an abnormal embryonic closure of median raphe. These are the cystic or nodular and linear swellings of the ventral penis occur near the glans. In adolescence or adulthood they may become traumatized or infected with some of the micro-organisms such as staphylococci, gonococci or trichomonas and presents as painful erythematous purulent nodules. Histologically, they are either dermoid or mucoid, depending on their embryology or epithelial lining.

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A 12 year-old boy came with history of an asymptomatic, slowly growing two swelling of sizes measuring 2 × 2 cm in the frenulum of the penis (Fig1). He had no history of trauma, contact, inflammation, urinary tract infection, hematuria or dysuria. The cysts were fluid filled, non tender, freely movable within the dermis, and had a smooth surface. Excision of the cyst was performed under IV diazepam. Macroscopically, the cut surface of the mass appeared to be full of a cheesy material, and both cytology and culture was negative, diagnosis was made as epidermoid cyst of the penis. Fig 1.

#### **DISCUSSION**

Penile cysts or male genital cystic diseases occur in various sizes and lengths; they are usually solitary, and may be rarely multifocal. The differential diagnosis of cystic structures in the genital region includes an extensive range of conditions. Among the more serious diseases, urethral diverticula and urethrocutaneous fistula are important, but can usually be ruled out by both physical examination and the conditions evident upon voiding. When the diagnosis remains questionable, a voiding cystourethrogram should be obtained. Unlike urethral diverticula, such cysts do not communicate with the urethra. Although rare, the extension of a cyst into the pelvis has been reported previously. In cases of suspected extension, magnetic resonance imaging is most useful to know the anatomical boundaries of the lesion<sup>2</sup>.

Epidermoid cysts are keratin containing cysts lined by the epidermis, usually located over the scalp, face, chest, neck, upper back and extremities. These also develop on non-hairy areas such as palms and soles following traumatic implantation. They also occur on the breast, vulva, clitoris, scrotum, perineum and penis. Epidermoid cysts are a part of certain hereditary syndromes including Gardner's syndrome, basal cell nevus syndrome and pachyonychia congenita.

Penile epidermoid cysts are uncommon, and extensive review of literature revealed only five cases having been reported worldwide. They are lined by well-developed stratified epithelium without skin appendages. Another report has stated that it may represent a monolayer germ cell teratoma, as proposed for intratesticular epidermoid cysts, and others have suggested that median raphe cysts are a different

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entity from epidermoid cysts<sup>3</sup>. However, some authors have also proposed both theories. The present case is more likely to have originated from a median raphe cyst because of the patient's age and the cyst



Fig 1. Clinical appearance of the cystic swelling of penis

location. Median raphe cysts can occur anywhere along the genitoperineal raphe from the urethral meatus to the anus. Most researchers believe that median raphe cysts are the sequelae of an error in the embryologic development of the male genitalia<sup>4</sup>. During normal development, the paired genital folds are positioned at the base of the genital tubercle, and gradually envelop the urethral plate and merge in the midline to create the bulbar and pendulous segments of the urethra. The glandular urethra is created by the coring action of an ectodermal ingrowth<sup>5</sup>. To our knowledge till now, no cases of malignancy in cystic disease of the penis have been reported previously, still patient should be followed on. The indications for the treatment of cysts are secondary cystic infection, pain upon intercourse, cosmetic reasons, or obstruction of the urinary tract. Simple complete excision followed by primary closure has generally been regarded as the best treatment procedure<sup>6</sup>. Aspiration and simple drainage may carry a risk of recurrence. It has been reported that re-excision was required when residual tissue was left after treatment. In cases where no malignancy is evident, simple observation may be the best treatment option as in our treatment.

In the present case, the indications for complete excision of the cyst were its fairly large size, its tendency to grow, the risk of urethral obstruction, a risk of future difficulty with sexual intercourse, and cosmetic considerations. Also this case being presented due its rarity and age group.

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