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Case Report

Paediatric Surgery Section

Parameatal Cyst: A Presentation of Rare Case and Review of Literature

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ABSTRACT

A parameatal urethral cyst is a very rare congenital anomaly. It was first reported in two males in 1956 by Thompson and Lantin. About 50 cases have been published since then. Most of the cases which have been reported were from Japanese population and on extensive literature search, few cases were found to have been reported from India. We are reporting a case of a parameatal urethral cyst in a 7-year-old boy. Complete excision of the cyst with total removal of the epithelium is required for treatment and for prevention of recurrence.

Key words: Parameatal cyst, Mucoid cyst, Apocrine cystadenoma, Urethral cyst

CASE REPORT

A 7-year old boy presented to the surgical clinic with a swelling on the right side of glans penis, which was there since past five months. On examination, a spherical cystic mass which was about 0.8 cm in diameter was found at the external urethral meatus [Table/Fig- 1]. There were no urinary symptoms other than spraying of the urinary stream and poor cosmesis. There was no history of trauma. No inflammatory signs were present. Blood counts, blood chemistry, urine analysis and urine culture were normal. The cyst was completely excised under general anaesthesia, taking care to remove all of the lining epithelium. Good cosmetic results were obtained, without meatal strictures and urine flow problems. The postoperative period was uneventful. Histologically, the cyst wall was lined by tall columnar epithelium and there was no evidence of any infection or inflammation. No recurrence was observed at 10-months of follow-up.

[Table/Fig-1]: Clinical photograph of parameatal urethral cyst of the glans penis

DISCUSSION

Parameatal urethral cysts are very rare benign lesions which are seen in boys, but they can also occur in infants, girls and adults. They were first described by Thompson and Lantin [1] in 1956; nearly 50 cases have been published since then. The pathogenesis of these cysts has not been completely understood. Thompson and Lantin stated that parameatal urethral cysts occurred in the process of delamination or separation of the foreskin from the glans penis, while Shiraki [2], Oka et al., [3] and Yoshida et al., [4] believed that they were caused by occlusions of paraurethral ducts. Hill et al., [5] suggested that these obstructions could be caused by infections. Recently, Soyer et al., [6] reported two cases of newborns, in whom paraurethral cysts which were associated with vaginal bleeding and breast enlargement were seen, which showed the possibility of role of oestrogens in their development. The origin of parameatal urethral cysts from accessory male sex glands in the penile urethra was demonstrated by detection of prostatic-specific antigen (PSA) in cells of these cysts with the help of immunohistochemistry [7]. In our case, a parameatal duct obstruction could have been a possible aetiology.

The cysts are usually small of about 1 cm in diameter. They occur on the lateral margin of the urethral meatus and at times, they can be bilateral. They may be congenital or they may appear spontaneously [4]. In our case, the lesion was about 0.8 cm in diameter and it had appeared spontaneously. Diagnosis is incidental when cysts are asymptomatic. However, sometimes, they may cause urinary retention, painful micturition and sexual intercourse [8], poor cosmesis, and distortion of urinary stream .When the cysts are traumatized; they may bleed, rupture or become infected.

The treatment of choice for such cysts is complete excision; however, needle aspiration, simple decapping, and marsupialization have also been reported but recurrences are common with these methods [2]. Histological examinations have shown that these cysts are lined by different types of epithelium like columnar, transitional, cuboidal or squamous. The lining epithelium actually varies according to the segmental origin of the urethra of the lesion. In present case, the cyst wall was lined by tall columnar epithelium.

CONCLUSION

A parameatal cyst is a benign, usually asymptomatic condition that may contain a variety of epithelial types. A physical examination is sufficient to make a diagnosis and a complete surgical excision is necessary to obtain good cosmetic results without recurrence.

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