

Para-meatal urethral cyst with bladder calculi: A case report and review of the literature

Siddangouda B. Patil, Nikhil Ashok Patil, Vinay S. Kundargi, Ashok N. Biradar

Department of Urology, Shri B. M. Patil Medical College and Research Centre, Bijapur, Karnataka, India

ABSTRACT

Para-meatal urethral cyst or median raphe cyst of the glans penis is a benign cystic lesion uncommonly encountered in prepubertal age group. Approximately, about 50 cases have been reported till date in the world literature. Herein we report a case of para-meatal urethral cyst concurrent with urinary bladder calculi.

Key words: Para-meatal cyst, prepubertal, urinary bladder calculi

Submission: 10-11-2014 **Accepted:** 10-04-2015

INTRODUCTION

Para-meatal urethral cyst is usually asymptomatic. However, they might present with lower urinary tract symptoms such as frequency, painful micturition, and acute urinary retention.^[1] On extensive search, only a few cases of para-meatal urethral cyst concurrent with urinary symptoms have been reported. Para-meatal urethral cyst also called as median raphe cyst of glans penis. These are rare benign cystic lesions encountered in infants and boys in prepubertal age group. They were first discounted by Lantin and Thompson in 1956.^[2] Hill and Ashken in 1977 reported 20 cases most of them were males.^[3] Recently, Soyer *et al.* reported two female newborn with para-meatal urethral cyst associated with vaginal bleeding and breast enlargement.^[4] In females, differential diagnosis for para-meatal urethral cyst includes ureterocele, periurethral abscess, and ectopic ureter.^[5] Herein we report a para-meatal urethral cyst with bladder calculi in a prepubertal boy.

Address for correspondence: Dr. Nikhil Ashok Patil,
Department of Urology, Shri B.M.Patil Medical College and Research
Centre, Bijapur, Karnataka, India.
E-mail: drpatilnikhil@yahoo.com

CASE REPORT

A 10-year-old boy presented with complaints of increased frequency of micturition since 6 months and burning micturition since 1-month. He had complained of two episodes of hematuria 1-week back. No history of fever, vomiting. On clinical examination per abdomen was normal. Genital examination showed a cystic mass about 1.0 cm × 0.8 cm in size at the external urethral meatus [Figure 1]. Cyst was nontender, and partial obstruction of the meatus was noted. Urinary stream was distorted. Urine routine showed plenty of pus cells. Ultrasound abdomen was done to know the postvoid residual volume, which was 60 ml (significant). To our surprise, USG also showed 18 mm × 12 mm size bladder calculus [Figure 2]. Percutaneous cystolithotomy and cyst excision with meatal reconstruction were done. Foleys catheter Fr. 10 was kept for 3 days. The cyst was sent for histopathological examination. The postoperative period was uneventful.

DISCUSSION

Paraurethral cysts are usually asymptomatic. Patients might present with dysuria, frequency, urinary stream distortion very rarely they might present with acute urine retention. Single case of an adult with para-meatal urethral cyst presenting with painful intercourse has also been reported by Nerli *et al.* in 2012.^[6]

Para-meatal urethral cysts have various diagnostic synonyms based on their pathology. There include apocrine cystadenoma of glans penis, mucoid cyst, urethromucoid

Access this article online

Quick Response Code:



Website:

www.ijabmr.org

DOI:

10.4103/2229-516X.165370

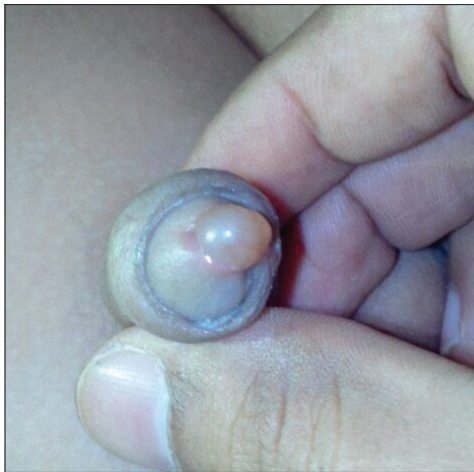


Figure 1: Clinical photograph of an obstructive para-meatal urethral cyst

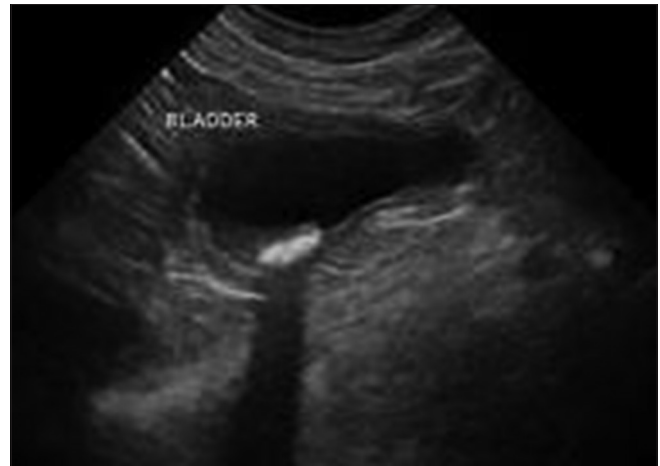


Figure 2: Ultrasound image showing an echo-reflective bladder calculus

cyst of the penis.^[7] The etiopathogenesis of these cysts remains unknown. Various hypothetical backgrounds have been proposed in formation of paraurethral cyst. Hill and Ashken believed that infection could be the probable cause of obstruction. Lantin and Thompson proposed the theory that delamination of the foreskin from the glans penis resulted in the cyst formation. Shiraki *et al.* proposed that obstruction of paraurethral ducts resulted in cyst formation.^[8]

Demonstration of prostate specific antigen in the cells of these cysts has confirmed the origin of para-urethral cyst from accessory male sex glands. This has been achieved with the help of immunohistochemistry.^[9] Formation of bladder calculus secondary to para-meatal urethral cyst can be explained due to obstruction and recurrent urinary tract infection.

Total Surgical excision with meatal reconstruction remains the treatment of choice in para-meatal urethral cyst. The main objective of surgery is to produce good cosmetic results and avoid recurrence. Thus, waiting for spontaneous rupture, needle aspiration, and marsupialization does not suffice the objective.^[10] A good cosmetic result with no recurrence has been reported with complete surgical excision.

Histologically, the cyst wall may be lined by columnar, transitional or squamous epithelium. The lining varies according to the segmental origin of the lesion in the urethra. In the present case, the cyst wall was lined by tall columnar epithelium.

CONCLUSION

Para-meatal urethral cysts are rare benign cystic lesions of glans penis. Asymptomatic lesions require proper evaluation while symptomatic lesions require special attention as they tend to go for recurrent urinary tract infections. Complete surgical excision is mandatory to avoid recurrence and for good cosmetic results.

REFERENCES

1. Stovall TG, Muram D, Long DM. Paraurethral cyst as an unusual cause of acute urinary retention. A case report. *J Reprod Med* 1989;34:423-5.
2. Lantin PM, Thompson IM. Parameatal cysts of the glans penis. *J Urol* 1956;76:753-5.
3. Hill JT, Ashken MH. Parameatal urethral cysts: A review of 6 cases. *Br J Urol* 1977;49:323-5.
4. Soyer T, Aydemir E, Atmaca E. Paraurethral cysts in female newborns: Role of maternal estrogens. *J Pediatr Adolesc Gynecol* 2007;20:249-51.
5. Malatinský E. Parameatal urethral cyst. *Urol Int* 1989;44:187-8.
6. Nerli RB, Patil S, Hiremath MB. Parameatal urethral cyst presenting with painful intercourse. *Med Surg Urol* 2012;1:104.
7. Pettaway CA, Lynch DF, Davis JW. Tumors of the penis. In: Wein AJ, ed. *Campbell-Walsh Urology*. 9th ed. Philadelphia: Saunders Elsevier;2007.
8. Shiraki IW. Parametal cysts of the glans penis: A report of 9 cases. *J Urol* 1975;114:544-8.
9. Aggarwal K, Gupta S, Jain VK, Goel A. Parameatal urethral cyst. *Indian J Dermatol Venereol Leprol* 2008;74:430.
10. Isen K, Bostancı Y, Sezgin A, Demir E, Utku V. Parameatal urethral cyst of the glans penis in a boy. *Ege J Med Ege Tip Dergisi* 2009;48:119-21.

How to cite this article: Patil SB, Patil NA, Kundargi VS, Biradar AN. Para-meatal urethral cyst with bladder calculi: A case report and review of the literature. *Int J App Basic Med Res* 2015;5:220-1.

Source of Support: Nil. **Conflict of Interest:** None declared.