

## Congenital parameatal cyst: A case report

Mahato SK<sup>1</sup>, Chaudhary N<sup>2</sup>, Lama S<sup>3</sup>, Bhatia B<sup>4</sup>

<sup>1</sup>Shyam Kumar Mahato, Assistant Professor; <sup>2</sup>Nagendra Chaudhary, Assistant Professor; <sup>3</sup>Susana Lama, MD Resident; <sup>4</sup>Baldev Bhatia, Professor and Head of Department; Department of Paediatrics, Universal College of Medical Sciences Teaching Hospital, Bhairahawa, Nepal

### Abstract

Parameatal urethral cyst is a benign congenital anomaly which occurs in newborn, children or even in adults. Most are asymptomatic and rarely present with urinary complaints. We report a case of an asymptomatic male newborn with congenital parameatal cyst which was recognized just after birth. Complete excision of the cyst with total removal of the epithelium is required for treatment and for prevention of recurrence.

**Key words:** Congenital cyst, Parameatal urethral cyst

### INTRODUCTION

Parameatal urethral cyst is a rare condition seen in neonates as well as in adults. Only around 50 cases of parameatal urethral cysts have been reported so far<sup>1</sup>. The first case was reported by Thompson and Lantin in the year 1956<sup>2</sup>. Most of the times these cysts are asymptomatic but can cause urinary symptoms like dysuria, difficulty in micturition, urinary retention or even disfigurement of genitalia leading to painful intercourse<sup>3</sup>. The etiology of parameatal urethral cyst is unknown<sup>4</sup>, but has been seen to occur secondary to inflammation. It can rarely present as a congenital anomaly<sup>5</sup>. We report a case of congenital parameatal urethral cyst in an asymptomatic newborn male. Verbal consent was taken from the parents for publication.

### CASE REPORT

A single, term, male baby of appropriate gestational age, normally born had a cystic lesion situated at the external urethral meatus. On examination, a small cystic mass was seen at 6 o'clock position. Its surface was smooth and white in color and few blood vessels were seen approaching towards the centre of the cyst (Figure 1). The cyst was non-tender and there was no local rise in temperature. There was no problem with urination.



Figure 1: Parameatal Urethral Cyst

The size of the cyst was (0.5 x 0.3) cm. It was planned for excision under general anesthesia but the parents refused to undergo surgery. The baby was not brought back for further follow-up.

### DISCUSSION

Parameatal urethral cyst is one of the rare conditions seen in males. These cysts can occur in neonates, infants, and adults<sup>1</sup>. Nearly 50 cases have been reported with majority from Japanese population, and very few in India<sup>1</sup>. The exact pathogenesis of the cyst has not been explained till date. Thompson and Lantin stated that parameatal urethral cysts occurred in the process of delamination or separation of the foreskin from the glans<sup>2</sup>. Whereas Shiraki et al described it to be due to occlusion of paraurethral duct<sup>6</sup>. Hill and Ashken pointed out that the obstruction could be the result of infection<sup>7</sup>.

These cysts are small in size measuring about one centimeter in diameter. The cyst may appear as a

#### Address for correspondence

Dr. Shyam Kumar Mahato  
Assistant Professor  
Department of Paediatrics  
Universal College of Medical Sciences Teaching Hospital,  
Bhairahawa, Rupandehi, Nepal.  
E-mail: shyam\_319@yahoo.com

congenital swelling or may appear later spontaneously<sup>5</sup>. They usually occur on the lateral margin of the urethra and at times, may be seen on both margins<sup>5</sup>. In this case it was 0.5 centimeter in maximum diameter, asymptomatic, congenital in origin and located on the lower margin of the urethral meatus. Soyer et al reported two female newborns with parameatal urethral cyst with vaginal bleeding and breast enlargement<sup>8</sup>. He postulated the probable role of estrogen in the development of paraurethral cyst<sup>8</sup>. The origin of parameatal urethral cyst in males could be from accessory male sex glands in the penile urethra which was demonstrated by performing immunohistochemistry on cells of these cysts that were positive for prostate-specific antigen<sup>9</sup>. The cysts are diagnosed as incidental findings when asymptomatic. Sometimes they may present with urinary retention, painful micturition, poor cosmesis and distortion of urinary stream. The cysts may bleed when injured and ruptured<sup>3</sup>. Blavias et al suggested doing voiding cystourethrography to rule out urethral diverticula in a case of parameatal urethral cyst, especially if seen in adult females<sup>10</sup>. In this case diagnosis was made by physical examination. The choice of treatment for parameatal urethral cyst although not completely understood is complete excision in asymptomatic

babies. Other options could be to wait for spontaneous rupture, needle aspiration, marsupialisation, and simple decapping<sup>6</sup>. Recurrences are usually seen after needle aspiration or spontaneous rupture<sup>6</sup>. Almost no incidence of recurrence has been reported with complete excision<sup>10</sup>.

Histologically, the wall of these cysts is lined by columnar, transitional, cuboidal or squamous epithelium. The lining usually differs on the basis of the segment of the urethra from where it originates<sup>1</sup>. In present case, we could not perform any histopathological analysis as the parents refused surgery.

## CONCLUSION

A parameatal urethral cyst is one of the rare conditions which may occur as a congenital lesion or spontaneously in later life. It can be seen in both males and females. The exact etiology is unknown. It is a benign lesion and is usually asymptomatic and hardly needs any interventions. The cyst is usually lined by different types of epithelium. It can be diagnosed just on physical examination and can be cured by complete excision, after which recurrence is rare. Excision of cyst is mostly done for cosmetic reasons.

## REFERENCES

1. Lal S, Ankur A. Parameatal cyst: a presentation of rare case and review of literature. *J Clin Diagn Res.* 2013 Aug;7(8):1757–8.
2. Neeli S, Patne P, Hiremath S, Kadli S. Parameatal cyst of glans penis. *J Sci Soc.* 2012;39(1):45.
3. Aggarwal K, Gupta S, Jain VK, Goel A. Parameatal urethral cyst. *Indian J Dermatol Venereol Leprol.* 2008 Aug;74(4):430.
4. Yoshida K, Nakame Y, Negishi T. Parameatal urethral cysts. *Urology.* 1985 Nov;26(5):490–1.
5. Shiraki IW. Parametal cysts of the glans penis: a report of 9 cases. *J Urol.* 1975 Oct;114(4):544–8.
6. Hill JT, Ashken MH. Parameatal urethral cysts: a review of 6 cases. *Br J Urol.* 1977 Aug;49(4):323–5.
7. Soyer T, Aydemir E, Atmaca E. Paraurethral cysts in female newborns: role of maternal estrogens. *J Pediatr Adolesc Gynecol.* 2007 Aug;20(4):249–51.
8. Ichiyanagi N, Shibata T, Matsumura T, Ishimaru H, Sakai K. Immunohistochemical identification of prostate-specific antigen in a parameatal urethral cyst of the glans penis. *Br J Urol.* 1998 Jan;81(1):170–1.
9. Blaivas JG, Flisser AJ, Bleustein CB, Panagopoulos G. Periurethral masses: etiology and diagnosis in a large series of women. *Obstet Gynecol.* 2004 May;103(5 Pt 1):842–7.
10. Lantin PM, Thompson IM. Parameatal cysts of the glans penis. *J Urol.* 1956;76: 753–755.

