

## Acknowledgement

The authors would like to thank the baby's family for allowing us to share this case. Thank you to the Sheffield Children's Metabolic team for their support while writing up this case, in particular Dr Mark Sharrard, for his invaluable expertise and encouragement.

## Parental consent

Written consent for publication was provided by the patient's parent.

## References

1. **Agostoni C, Buonocore G, Carnielli VP, et al.** Enteral nutrient supply for preterm infants: commentary from the European Society of Paediatric Gastroenterology, Hepatology and Nutrition Committee on Nutrition. *J Pediatr Gastroenterol Nutr* 2010;50:85-91.
2. **Spiekerkoetter U.** Mitochondrial fatty acid oxidation disorders: clinical presentation of long-chain fatty acid oxidation defects before and after newborn screening. *J Inher Metab Dis* 2010;33:527-32.
3. **Saudubray JM, van den Bergher G, Waler JH.** Inborn metabolic diseases, fifth ed. Springer-Verlag, Berlin Heidelberg;2012:205.
4. **Jones PM, Butt Y, Bennett MJ.** Accumulation of 3-hydroxy-fatty acids in the culture medium of long-chain L-3-hydroxyacyl CoA dehydrogenase (LCHAD) and mitochondrial trifunctional protein-deficient skin fibroblasts: implications for medium chain triglyceride dietary treatment of LCHAD deficiency. *Pediatr Res* 2003;53:783-87.
5. **Nutricia.** Cow & Gate Nutriprem Protein Supplement. Online at: [www.nutricia.co.uk/hcp/pim-products/cow-gate-nutriprem-protein-supplement.html](http://www.nutricia.co.uk/hcp/pim-products/cow-gate-nutriprem-protein-supplement.html) [accessed 8 December 2021].
6. **Crawley H, Westland S, Weston S.** Specialised infant milks in the UK: infants 0-6 Months. Information for health professionals. 2019 online at: [www.firststepsnutrition.org/s/Specialised\\_milk\\_Sep19\\_finalc.pdf](http://www.firststepsnutrition.org/s/Specialised_milk_Sep19_finalc.pdf)

# A dorsal urethral cyst in a newborn: an image case report

Parameatal urethral cysts are benign congenital lesions of the penis that are extremely rare in the newborn period. This article presents the case of a term infant with glanular hypospadias and a cystic lesion extending from the glans penis.

## Sarah Arthur

Paediatric Registrar  
Severn Deanery

## Pieter Van-Hensbergen

Neonatal Consultant, Musgrove Park  
Hospital, Somerset NHS Foundation Trust

## The case

**A** term male neonate was found at birth to have a cystic lesion extending from his glans penis. He was a low risk pregnancy with no significant antenatal history born by spontaneous vaginal delivery.

He had a normal systemic examination with a glanular hypospadias. The cyst was dorsal to the urethral opening (parameatal) and measured 0.8mm (**FIGURE 1A and 1B**). The infant showed no

signs of discomfort when the lesion was examined. The urethral opening appeared crescent and slit-like (**FIGURE 1C**). The medical team was concerned there may be external compression of the urinary system, however, no features of obstruction were present on the bladder scan or clinically. The infant passed urine at exactly 24 hours of age with a normal stream. On day 2, the cyst spontaneously ruptured. The baby was referred to the urology team for further assessment of the hypospadias

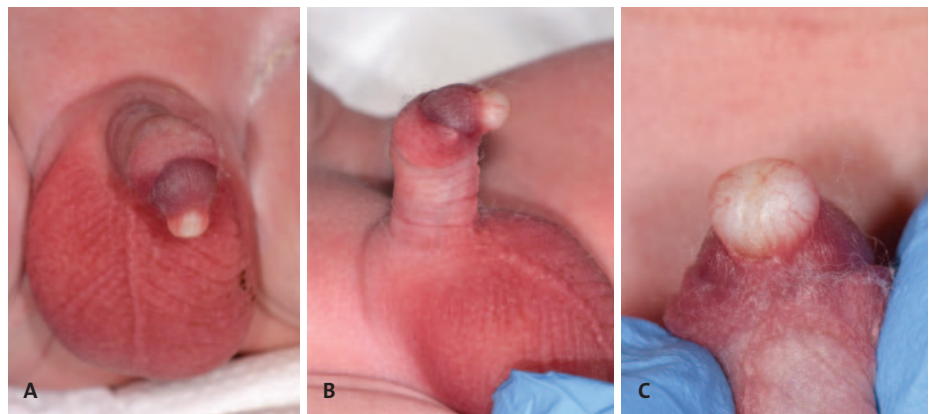
## Keywords

parameatal cyst; glanular hypospadias; meatoplasty

## Key points

**Arthur S., Van-Hensbergen P.** A dorsal urethral cyst in a newborn: an image case report. *Infant* 2022; 18(2): 82-83.

1. Parameatal cysts are rare and maybe unfamiliar to paediatric, neonatal and midwifery staff.
2. A parameatal cyst with associated hypospadias in newborn babies is extremely rare.
3. Referral to a urologist may be necessary.



**FIGURE 1** (A) The urethral cyst arising from the dorsum of the glans penis. (B) Glanular hypospadias with the dorsal urethral parameatal cyst. (C) A crescent urethral opening with the parameatal cyst dorsal to the urethra.

and to ensure no recurrence. When reviewed at six months of age, the urologists consented for a meatoplasty due to meatal stenosis. There was no recurrence of the cyst at this time.

### Discussion

Glanular hypospadias is a relatively common congenital condition in which the opening of the urethra is located on the head of the penis, but not at the tip. However, parametatal cysts are rare and therefore maybe unfamiliar to paediatric, neonatal and midwifery staff. There are no reports of direct urethral communication and obstruction is a rare feature.<sup>1</sup> It is extremely rare to have other associated congenital abnormalities; only one previous report has described hypospadias.<sup>2</sup>

Embryologically the urethra is fully formed by the fourth month of gestation. The urethral groove is endodermal in

origin and elongates parallel to the growth of the penis. The urethral tip consists of ectodermal cells and develops in the glans, these cells canalise to connect with the rest of the urethra.<sup>3</sup> Urethral cysts commonly present on the ventral surface; theories include blocked paraurethral ducts and persistence of cystic spaces during preputial development.<sup>4,6</sup> In the case presented here, the cyst was dorsal in origin. Urethral cysts largely present outside of the newborn period and are mainly asymptomatic. In a study of 69 children, 42% were managed non-operatively and, of 22 responders to follow up, 27% spontaneously resolved, 68% improved or stabilised, and 95% remained symptom free.<sup>1</sup> In the newborn presentation, urethral cysts may recur, maybe associated with other abnormalities and surgical excision maybe required. Reassurance to parents with discussion

or referral to urologists is therefore recommended.

### Parental consent

Written consent for publication was obtained from the parent of the patient.

### References

1. Matsuyama S, Matsui F, Yazawa K, et al. Long-term follow-up of median raphe cysts and parametatal urethral cysts in male children. *Urology* 2017;101: 99-103
2. Brown S, Mohamed ASA, Ray S, et al. Bilateral parametatal cysts with associated hypospadias presenting in a newborn baby. *BMJ Case Reports* 2018;2018:bcr-2018-227425.
3. Johnson FP. The later development of the urethra in the male. *J Urol* 1920;4:447-502.
4. Thompson IM, Lantin PM. Parametatal cyst of the glans penis. *J Urol* 1956;76:753-55.
5. Shiraki IW. Parametatal cysts of the glans penis: a report of 9 cases. *J Urol* 1975;114:544-48.
6. Hill JT, Handley Ashken M. Parametatal urethral cyst: a review of six cases. *Br J Urology* 1977;49: 323-25.

# Avoid the scrum - get your own copy of *Infant*

Keep up to date with *Infant* for just **£40** for a whole year

*Infant* is the essential journal for neonatal and paediatric healthcare professionals, containing authoritative articles with a clinical or practical bias written by experts in their field.

Printed and online subscriptions for the coming year give instant access to all issues to date, including the full text of over 70 articles published in the past two years, available exclusively to subscribers.

Subscribe online at [www.infantjournal.co.uk](http://www.infantjournal.co.uk)  
or email [subscriptions@infantjournal.co.uk](mailto:subscriptions@infantjournal.co.uk)  
or call Victoria on 01279 714511



# infant