

Vulval mass in the newborn period – a case report

This report describes the case of a female infant presenting with a large mass protruding from her vulva. Clinical assessment and examination under anaesthesia confirmed the diagnosis of prolapsed ureterocele. Prolapse of a ureterocele and its presentation as a vulval mass is an extremely rare condition.

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A female Caucasian baby was born at term by elective caesarean section with no neonatal difficulties. Antenatal left-sided hydronephrosis was detected at 32 weeks of gestation with an antero-posterior diameter of the left renal pelvis of 29mm. The ureter on the same side was also dilated. Two days after birth, renal ultrasound showed a normal right kidney and hydronephrosis of the left kidney with a pelvic diameter of 23mm. The left ureter was dilated up to the bladder and a ureterocele was also detected. The baby girl was discharged home pending paediatric urology assessment.

At six days' old, the baby was admitted to the neonatal unit with a fairly large vulval mass. The mass was 6 x 3cm in size, cylindrical in shape and dark purplish-pink in colour (**FIGURE 1**). Examination under anaesthesia by a perinatal urologist confirmed the presence of a prolapsing ureterocele that was pulling down the bladder neck. The prolapse was gently reduced and de-roofing of the ureterocele was undertaken. The patient required a suprapubic catheter and a urethral catheter for a few days following surgery. Creatinine was mildly elevated for a few days after surgery.

Six weeks after surgery, a renal ultrasound investigation showed a normal right kidney and a dilated upper moiety of the left kidney. The proximal half of the left ureter was dilated up to 10mm and there was cortical thinning of the left upper moiety. A dimercaptosuccinic acid (DMSA) scan confirmed poorly functioning upper moiety of the left kidney. The infant underwent left heminephrectomy at three months of age. Currently, at the age of 26 months, the child is doing very well.



FIGURE 1 A long, cylindrical, pink mass prolapsing from the vulva of a six-day-old girl.

Keywords

vulval mass; ureterocele; antenatal hydronephrosis

Key points

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1. This case describes the occurrence of a vulval mass in the newborn period, with good eventual outcome.
2. Careful history taking and a detailed physical examination can help to determine the most appropriate investigations and course of management.

Discussion

A ureterocele is a congenital swelling occurring in the lower region of the ureter at the opening to the bladder. It is often associated with a duplicated collecting system where two ureters drain their respective kidney instead of one. The swollen area forms a sac-like pouch, which causes obstruction to the flow of urine resulting in dilatation of the ureter and sometimes the renal pelvis. The differential diagnoses of a vulval (intralabial) mass in a female infant should include:

- urethral prolapse
- vaginal introital cyst (epidermal inclusion cyst, Skene's duct cyst)
- imperforate hymen
- urogenital sarcoma (sarcoma botryoides)
- genital prolapse.

Ureteroceles occur in approximately 1 in 4,000 individuals and are more common in the Caucasian population. A prolapsing ureterocele presenting as a vulval mass is an extremely rare condition.