Neonatal imperforate hymen with hydrocolpos

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DESCRIPTION

A 34+4 weeks neonate was born by spontaneous vaginal delivery with normal antenatal scans. Routine neonatal examination revealed the absence of a vaginal opening with bulging of vaginal introitus (*figure 1*). Urethral and anal openings were patent. A provisional diagnosis of an imperforate hymen with hydrocolpos was considered.

Subsequent investigations revealed a deranged renal function at 22 hours of life (creatinine 99 µmol/L, urea 10.2 mmol/L, K 6.6 mmol/L and Na 132 mmol/L). An urgent abdominal ultrasound was arranged to rule out hydronephrosis. The kidneys and lower genitourinary tract were normal.

The imperforate hymen was managed surgically through a hymenal incision. Subsequently, the external female genitalia appeared normal (*figure 2*) and the renal function normalised. A positive family history was noted with an elder sibling who also had an imperforate hymen, which was surgically treated at 5 months.

The incidence of imperforate hymen is estimated at 0.014–0.1% and presentation is often late with amenorrhea in adolescence. Hydrocolpos is cystic dilation of the vagina with fluid accumulation due to stimulation of secretory glands of the reproductive tract secondary to vaginal obstruction. Hydrocolpos may lead to obstructive uropathy through the compression of the lower urinary tract, resulting in hydronephrosis and hydroureters.¹ Hence early detection is essential as it could be

Figure 2 Appearance of perineum after surgical management.

associated with life-threatening renal failure.² As observed in our report, cases of familial recurrence have been reported.³

A thorough newborn examination is essential to screen for an imperforate hymen, which can result in renal complications in the neonatal period.

Figure 1 Imperforate hymen noted at birth.

Learning points

- ▶ A thorough newborn screening examination may enable the detection of rare conditions such as imperforate hymen presenting in the neonatal period.
- ▶ An imperforate hymen usually presents in adolescence with amenorrhoea, but may be detected in the neonatal period.
- ▶ Hydrocolpos associated with an imperforate hymen can cause renal failure.

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REFERENCES

- 1 Eksioglu AS, Maden HA, Vinar G, *et al*. Imperforate hymen causing bilateral hydronephrosis in an infant with bicornuate uterus. *Case Rep Urol* 2012;2012:102683.
- 2 Nagai K, Murakami Y, Nagatani K, *et al*. Life-threatening acute renal failure due to imperforate hymen in an infant. *Pediatr Int* 2012;54:280–2.
- 3 Sakalkale R, Samarakkody U. Familial occurrence of imperforate hymen. *J Pediatr Adolesc Gynecol* 2005;18:427–9.

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