

## CLINICAL QUIZ (p261) ANSWER

Figure 1 showed a neonatal introital or interlabial mass. The most common differential diagnosis are 1) simple cyst e.g. hymenal cyst and periurethral cyst 2) urethral prolapse 3) hydrometrocolpos likely due to imperforate hymen and 4) prolapsed ureterocele 5) polyps and 6) rhabdomyosarcoma.<sup>1</sup>

A detailed physical examination can guide our further management.<sup>1-3</sup> The first essential step is to identify the relationship of the mass in relative to the vaginal and urethral openings. For periurethral cyst, the displacement of urethral meatus with a normal introitus is commonly found. Hydrometrocolpos appears as a mass protrudes out from vaginal introitus and a normally positioned urethral meatus. Urethral prolapse presents as a donut-shaped mass with central urethral meatus and a normal vaginal opening. Prolapsed ureterocele will usually associated with abnormal antenatal sonography with duplex kidney system while it appears as thin membrane mass that seems to slide down from the sidewall of urethra. Polyp and rhabdomyosarcoma are difficult to be differentiated clinically as both appears as a fleshy mass and hence tissue biopsy will be necessary.

In our case, the diagnosis of periurethral cyst has been made after both vaginal introitus and urethral meatus has been identified. As the mass is so large that the urethral opening has been displaced, urinary obstruction becomes a concern. After hydronephrosis and prolapsed ureterocele has been ruled out, surgical drainage was performed. Patient was well after the procedure and discharge on the next day with satisfactory recovery.

Periurethral cyst is rare in clinical practice with prevalence report from 1:2000 to 1:7000.<sup>2,3</sup> The largest periurethral gland in female is referred as Skene's duct and it will secrete mucoid material into distal two third of urethra. It is believed that the blockage of Skene's duct will give rise to the formation of these periurethral cyst. The management is still controversial due to its benign nature.<sup>2,4,5</sup> Several reports demonstrate spontaneous resolution few months after birth as they proposed it is related to maternal estrogen exposure and they opt for surgical drainage when cyst recur or fail to resolve spontaneously.<sup>2,4</sup> In summary, periurethral cyst is characterised by a completely asymptomatic lesion and can be diagnosed clinically.

## References

1. De Carolis MP, Rubortone SA, Romano V, De Carolis D, De Carolis S. An interlabial mass. *Arch Dis Child Fetal Neonatal Ed* 2012;97:F376.
2. Fujimoto T, Suwa T, Ishii N, Kabe K. Paraurethral cyst in female newborn: is surgery always advocated? *J Pediatr Surg* 2007;42:400-3.
3. Yilmaz Y, Celik IH, Dizdar EA, et al. Paraurethral cyst in two female newborns: which therapy option? *Scand J Urol Nephrol* 2012;46:78-80.
4. Badalyan V, Burgula S, Schwartz RH. Congenital paraurethral cysts in two newborn girls: differential diagnosis, management strategies, and spontaneous resolution. *J Pediatr Adolesc Gynecol* 2012;25:e1-e4.
5. Cevik M, Savas M, Guldur ME, Boleken ME. Urinary retention as the presentation of Bartholin's duct cyst in a neonate. *J Pediatr Adolesc Gynecol* 2012;25:e65-7.