Hydrometrocolpos with Ectopic Vaginal Opening to the Bladder

A Case Report

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Abstract
A case of hydrometrocolpos with vaginal opening to the bladder is presented. A newborn female presented abdominal distention and postaxial polydactyly at birth. Clinical investigation revealed hydrometrocolpos, precocious puberty, urogenital sinus and other multiple malformations. The vagina was open to the bladder with a small orifice. Vaginal pull-through surgery and closure of the communication was performed. Over a hundred cases of hydrometrocolpos have been reported previously. However, we could not find a case of hydrometrocolpos with vaginal opening to the bladder among them.

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Case Report

A newborn female, the product of a normal gestation, was noted to have postaxial polydactyly and abdominal distention at birth. A plain abdominal film showed a mass arising from the pelvis (fig. 1). Ultrasonography demonstrated a cystic mass in the lower abdomen, bilateral hydronephrosis and hydroureter. Computed tomography showed a sagittal septum in the mass (fig. 2).

As we tried to insert an urethral catheter, we found only one opening between the major labia. This opening looked like a vagina and a urethral meatus was not seen (fig. 3). No anorectal malformation was present. The catheter was inserted into the opening and a small amount of urine was drained, but abdominal distention was not relieved.

Then percutaneous drainage was established. A lot of turbid mucus was drained this time and abdominal distention was relieved. Antegrade studies revealed this mass consisted of the uterus and the vagina; hydrometrocolpos (fig. 4, left). Communication between the bladder and the vagina was not demonstrated in this study. Cysto-scopic examination showed three orifices on the trigone (fig. 4, center). Retrograde urography revealed that two of them were normal ureteral orifices but the other communicated to the vagina (fig. 4, right). No hymeneal ring was observed around this opening.

Closure of the vesicovaginal opening and transvesical vaginal pull-through surgery was performed. The patient’s postoperative course was uneventful and follow-up at 1 year confirmed resolution of the hydrometrocolpos.

Fig. 1. Plain abdominal film shows a mass in the pelvis.

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Hydrometrocolpos may be associated with a wide variety of other malformations [1]. In particular, association with postaxial polydactyly is well known as hydrometro-colpos-polydactyly or Kaufman syndrome [2]. In this case, further investigation revealed precocious puberty.

Over 100 cases of hydrometrocolpos have been reported since 1956 [2, 3]. Nguyen classified hydrometrocolpos into 5 types according to the anatomy of the vaginal obstruction and existence of urogenital or anorectal malformation [4, 5]. In our case, substantial vaginal atresia, though the vagina was opened to the bladder as an ectopic vaginal opening, and persistent urogenital sinus were observed. To our knowledge, this type of hydrometrocolpos with ectopic vaginal opening has not been seen in previous reports.
References

58
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