Acute urinary retention associated with unilateral hematocolpos and ipsilateral renal agenesis

Fayez T Hammad, FRCS Ed, Nema Al-Awadhi, FRCS Ed.

ABSTRACT
A virgin girl presented with acute urinary retention due to uterus bicornis associated with unilateral hematocolpos and ipsilateral renal agenesis. This is the third case to be reported in the literature. The management, which can be very challenging in societies which consider virginity essential in girls, is briefly discussed.

Keywords: Urinary retention, unilateral hematocolpos.

The combination of congenital vaginal and renal abnormalities are known to occur. The presentation is usually in the form of menstrual disturbances. This very rare case presented with urinary retention. In the Middle East, the management of such cases with preservation of the hymen can be a challenging problem.

Case Report. A 15 year old girl presented with two attacks of acute urinary retention. Both of them occurred at the time of menstruation. Since her menarche, two years prior to this problem, she never had any menstrual or urinary complaints. Examination revealed a right sided pelviabdominal mass. Rectal examination confirmed the findings, but it was difficult to know the origin of the mass. Pelvic examination could not be carried out because of local social beliefs that the hymen should not be disturbed before marriage. Intravenous urography showed a normal left kidney. The right one was absent (Fig. 1). There was an impression on the right side of the urinary bladder. Renogram confirmed the right renal agenesis. Pelvic ultrasonography revealed a bicornate uterus and an 8 x 8 x 8 cm cystic mass below the uterus which most probably represents an obstructed right hemivagina (Fig. 2).

Cystourethroscopy showed elongated urethra and atrophic right hemi-trigone. Under abdominal ultrasonic guidance, a slit approximately 2 cm was made in the vaginal septum, using a small blade introduced very cautiously through the little slit in the hymen (Fig 3). Six hundred millilitres of chocolate-like material was drained. Following this procedure, the girl did very well. Two years later, after she was married, the total vaginal septum was excised vaginally.

Discussion. Uterine abnormality associated with obstructed hemivagina due to incomplete fusion of the Mullarian duct is a rare congenital malformation. In this anomaly, the uterus may take the form of uterus didelphys, septate uterus or uterus bicornis. With the uterine abnormality, there is usually vaginal anomaly in the form of vaginal septum or double vagina. The association between genital and urinary abnormality was described a long time ago. This explains the occasional finding of ipsilateral renal agenesis in these patients. Approximately 89% of females with unilateral renal agenesis are likely to have significant accompanying genital abnormalities. In this syndrome, the clinical presentation varies depending on the utero-vaginal relationship. Most of the patients present with menstrual disturbances, lower abdominal swelling or with acute pelvic pain before they reach the stage of urinary retention. Rarely, they present with urinary retention. In fact only two cases were reported to present with acute urinary retention. The first case was an adolescent girl and the second was a 5 month old infant. In the two cases, the uterus was of the didelphys type. Here, we report the third case of acute urinary retention associated with unilateral hematocolpos, bicornate uterus, unlike the two cases, and ipsilateral renal agenesis, pointing out the potential difficulty in diagnosing and treating these patients in our society where local social beliefs hinder pelvic examination and could, in some families, make transvaginal therapeutic procedures in girls quite difficult. Diagnosing these cases requires, in addition to proper investigations, a high index of suspicion and a careful clinical examination including pelvic examination. Nowadays, pelvic magnetic resonance imaging (MRI) would give the correct diagnosis provided.

Received August 1996. Accepted for publication in final form February 1997.

Address correspondence and reprint request to: Mr Fayez T. Hammad, Department of Urology, Dundee Royal Infirmary, Barrack Road, Dundee DD1 9ND, United Kingdom. Fax No. 01382 346666.
the condition is kept in mind. In places where social beliefs hinder any pelvic examination in girls and where MRI is not available, diagnosis can be very difficult. Because of the rarity of these cases, there is no uniform line of management adopted. Foglia et al. treated these patients just by creating a vaginal window in the vaginal septum. Adams et al. on the other hand, go further and excise the entire vaginal septum two to three months after drainage. In our society, social beliefs may, in some families, make management potentially difficult and challenging. In such circumstances, creating a vaginal slit under ultrasound guidance, is an adequate temporary procedure. Another approach would be to make the slit endoscopically and transvaginally under vision. Since the remaining part of the septum may result in later obstetric complications e.g., obstructed labor, we think that excision of the entire vaginal septum is better carried out before planning pregnancy. If creating a vaginal slit under ultrasound guidance is not possible because the slit in the hymen is not enough or because of other technical difficulties, abdominal exploration, drainage and excision of the vaginal septum is the only option.

References