CASE REPORT: DEAD FETUS WITH BILATERAL HYDRONEPHROSIS

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ABSTRACT

A lady of 30 years, para.I, gravida 2nd came for obstetric ultrasound with a history of 19 wks.and of amenorrhea and vaginal bleeding for 3 days. Abdominal ultrasound reveals a dead fetus of 13 wks.and 6 days of gestation(biparietal diameter, BPD = 26.4 mm, crown-rump length, CRL = 58.2 mm) and bilateral fetal hydronephrosis (Fig.1)

INTRODUCTION

The definitive urinary tract, the metanephros, begins to develop during the 6th week of gestation.[1] Absence of ureteral bud formation occurs in approximately one in 4000 (four thousand) birth and causes bilateral renal agenesis and death from pulmonary hypoplasia.[2] Bilateral renal agenesis is seen in the obstetrical period and is incompatible with life. Sonographically, the diagnosis may be difficult and may be made by exclusion. Absence of identifiable renal tissue after ten weeks of gestational age and absence of bladder filling after 12 to 14 weeks gestational age is strong evidence for bilateral renal agenesis. After about 14 weeks the presence of oligohydramnios is also strongly suggestive.[3] When one does not visualize the fetal urinary bladder over a period of about 2 hours, 30 to 60 mg of furosemide may be given intravenously to the mother. This may induce fetal diuresis and the subsequent appearance of urine in the bladder about 15 to 45 minutes after administration; if this occurs, the fetus can produce urine and bilateral renal agenesis is excluded. Conversely, absence of urine in the fetal bladder following furosemide challenge is not a reliable indicator of bilateral renal agenesis e.g. severe intrauterine growth retardation with normal postnatal renal function may produce identical sonographic findings. As a result, this test has recently fallen out of favour.[2] Postnatal sonography and DTPA renograms are being done in neonatal hydronephrosis.

CASE REPORT

A lady of 30 years, para 1, gravida 2nd came for obstetric ultrasound with a history of 19 wks. of amenorrhea and vaginal bleeding for 3 days. Abdominal ultrasound reveals a dead fetus of 13 wks. and 6 days of gestation (biparietal diameter BPD = 26.4 mm, crown-rump length CRL = 58.2 mm) and bilateral fetal hydronephrosis (Fig.1). The patient had no history of blood dyscrasia, and did not give any history of trauma.

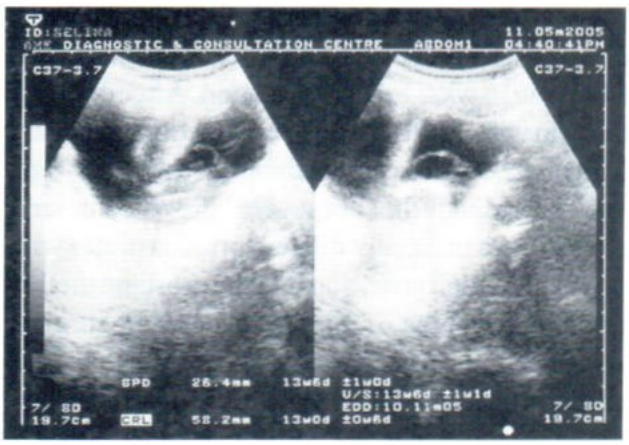

Fig.1 Fetal bilateral hydronephrosis.

DISCUSSION

Fetal hydronephrosis is one of the urinary tract anomalies which frequently requires postnatal surgical

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management.[4] In Khulna, Bangladesh, Paul et.al. reported a case of unilateral fetal hydronephrosis diagnosed by sonography, managed by surgical intervention in postnatal period and monitored by DTPA renogram.[5] Fetal kidneys can be seen with high resolution ultrasound by 12 to 14th week in a paraspinal location just below the liver and are imaged routinely after 26th weeks.[6] We found five cases of age range 30 weeks' gestation to 6 years suffering from fetal and neonatal hydronephrosis as confirmed by sonography (3.5 to 8 MHz) and monitored by DTPA renograms.[7] Posterior urethral valves (PUVs) may lead to complete urinary tract obstruction and profound oligohydramnios. This typically results in lethal pulmonary hypoplasia. Holden[8] and colleagues reported 3 cases of diamniotic twins discordant for complete bladder outlet obstruction and found that all 3 cases of twins who had bladder outlet obstruction died of lethal lung hypoplasia. However, all the twins with normal amniotic fluid volume survived. They concluded that the presence of a normal amniotic fluid volume in one sac does not protect the anhydramniotic twin from pulmonary hypoplasia.[8] Kontopoulos et al presented a case of monoamniotic male twins discordant for urinary tract obstruction resulting from a PUV at 16 wks. 1 day of gestation. After delivery, the twin with the PUV had no evidence of pulmonary hypoplasia, voiding cystourethrogram showed no right vesicoureteral reflux but severe left vesicoureteral reflux into a markedly dilated tortuous ureter with probable ectopic insertion into the prostatic urethra and at 15 months of age, he underwent surgical correction; specifically, cystoscopy confirmed the presence of an ectopic insertion of the left ureter; thus, the repair consisted of a left-to-right transureteroureterostomy (to avoid reimplantation of the left ureter into the abnormal bladder), right reduction ureteroplasty. Monfort abdominoplasty and bilateral orchidopexies. Postoperatively he did well.[9]

CONCLUSION

We hope to make fetal therapy more widely available than at present.

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