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Antenatally detected fetal duplex kidneys: Characteristics and postnatal outcomes

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Objective

To identify prenatal sonographic characteristics and postnatal outcomes of antenatally detected fetal duplex kidneys.

Methods

We performed an observational retrospective study of antenatal ultrasound diagnosis of duplex kidneys between December 2017 and February 2022 in our hospital. Sonographic findings were obtained from ultrasound reports. Postnatal outcome and follow up were obtained from hospital records.

Results

A total of 15 cases of duplex kidneys were identified prenatally. Two cases were excluded from analysis because of loss to follow-up. The mean gestational age at ultrasound diagnosis was 22.5+-2.9 weeks. 5 were male (38%) and 8 female (62%). Of the sonographic findings, 8 cases (62%) were right, 3 cases (23%) were left and 2 (15%) were bilateral. 7 cases presented hydronephrosis (54%), 3 had parenchima thinnig (23%) and none of the cases presented thickened bladder. Ureterocele was associated in 5 cases (38%). Postnatal confirmation of duplex kidneys was achieved in 12/13 cases (92%). The diagnosis of hydronephrosis was confirmed in 7/7 (100%) of patients that had follow up, and ureterocele was confirmed in 4/5 (80%). 4/13 patients (31%) required surgical intervention and from them, 4 (100%) had prenatal hydronephrosis and 3 (75%) had prenatal ureterocele.

Conclusion

Prenatal diagnosis of duplex kidneys has a good correlation with postnatal findings. Cases that needed surgery had hydronephrosis and ureterocele detected antenatally, so follow up should be focused in patients with these prenatal ultrasound findings.