

**UROLOGICAL IMPLICATIONS OF A ROUTINE THIRD TRIMESTER ANTENATAL SCAN**

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**Aim:** Fetal anomalies have been diagnosed by the routine anomaly scan at 18-22 weeks since the 1980s. Recently, to aid the prediction of small fetuses some units have introduced a routine third trimester scan at 32 weeks of gestation. This has introduced the opportunity to review fetal anatomy for further abnormalities at a later point in gestation. We assessed the incidence of new urological abnormalities not present on the anomaly scan but found on the routine third trimester scan over a two year period from its introduction in April 2012.

**Method:** All sonographic reports during this period were reviewed with postnatal clinic letters and investigations to compile our dataset.

**Results:** 8562 women received both anomaly and third trimester scans. 34 fetuses (15 male, 15 female, 4 lost to follow-up) were diagnosed with new urological abnormalities on the routine third trimester scan. Postnatal evaluation by paediatric urologists revealed the final diagnoses as:

14 cases of hydronephrosis (3 bilateral), 5 vesico-ureteric reflux (3 bilateral), 1 case posterior-urethral valves, 1 unilateral megaureter, 1 duplex kidney and 1 unilateral renal agenesis. In cases with hydronephrosis, the postnatal AP diameter varied between 7mm to 18mm. 7 patients resolved their sonographic abnormality or had normal postnatal scans. The overall incidence of new urological diagnoses from the routine third trimester scan is 0.4%.

14 patients received antibiotic prophylaxis and regular follow-ups. 6 patients required surgery, including deflux injection, posterior-urethral valve ablation, circumcision and pyeloplasty.

**Conclusion:** Late gestation hydronephrosis is likely related to increasing volumes of fetal urine. This explains some of our 'normal' cases. We have however found a number of patients that need long-term medical management and surgery in some. The morbidity saved by this scan is potentially significant and will require further evaluation as the routine third trimester scanning service is adopted more widely.