

Introduction

Congenital anomalies of kidney and renal tract (CAKUT) constitute 25% of all anomalies identified perinatally. CAKUT play causative role in 30-50% chronic kidney disease requiring renal replacement treatment in children. It is important to diagnose and initiate treatment early to prevent progression to end stage renal disease. Dilatation of the renal pelvis detected on antenatal ultrasound examination has an incidence of between 0.5 and 1% and may be associated with significant renal disease in a small number of babies. We discuss all these cases at our foetal medicine team meetings weekly and a neonatal consultant formulates neonatal notifications for postnatal plan.

Objectives

- To gather data on distribution & prevalence of types of antenatally detected renal anomalies
- To audit the local practice for investigations and treatment of renal pelvic dilatation against regional guidelines
- To ensure that investigations are performed in the stipulated time-frame

Methodology

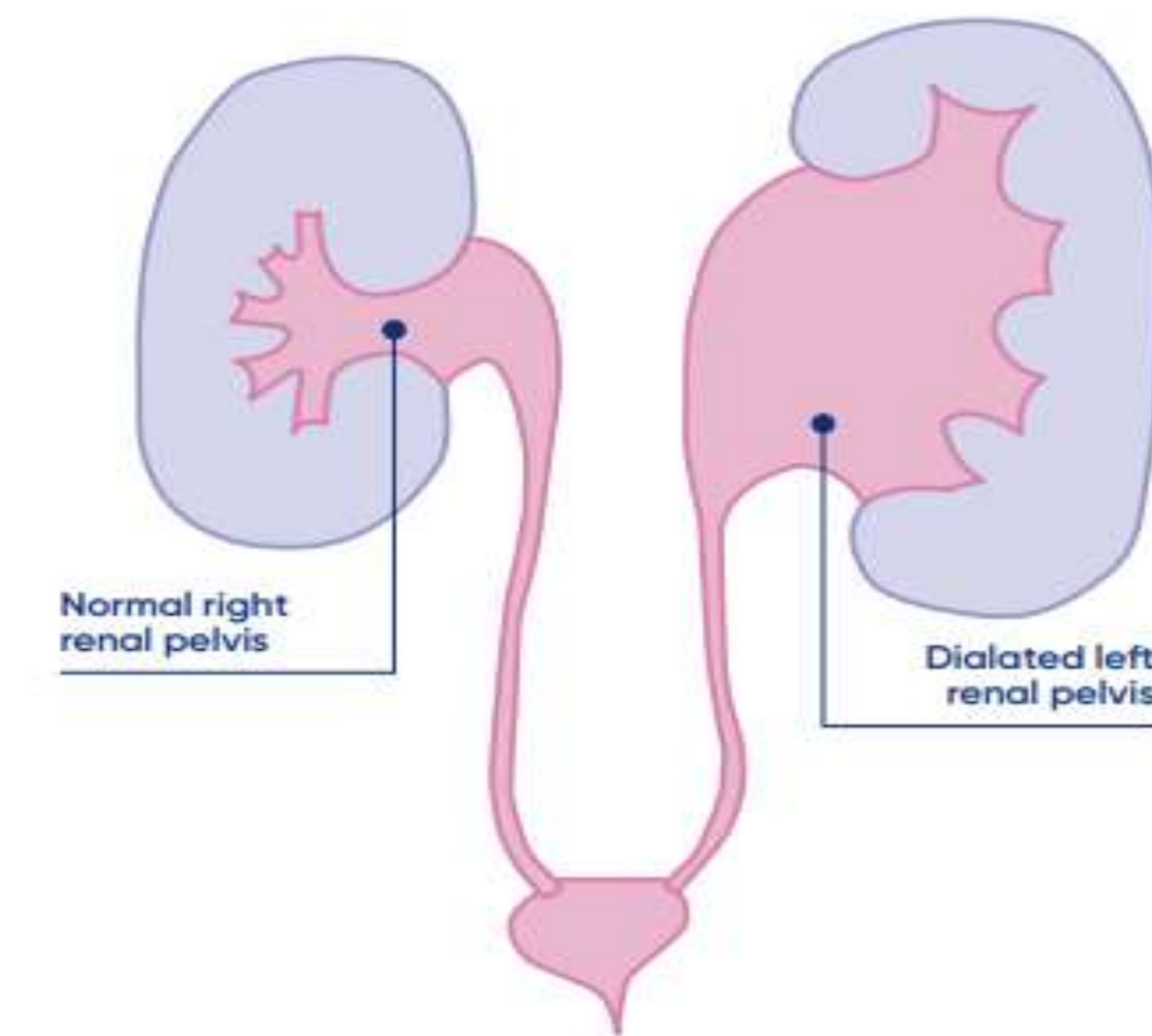
The study was part of the departmental audit. We identified cases from the records of the foetal multidisciplinary meetings held between June 2022 to June 2023. We collected maternal data, reviewed neonatal notifications and gathered data on antenatal scans, postnatal ultrasound scans and the time of antibiotic administration.

Results

- 22% urgent scans were done within 1 day and 100% within 72 hours
- 61% non-urgent scans were done within 48 hours to 2 weeks
- 80% babies were on trimethoprim prophylaxis
- 70% of uroprophylaxis was started within 24 hours and 15% were started after 48 hours as discharge medication
- By 6 months of age, 3 babies received treatment for urosepsis, all were on Trimethoprim from day 1 (1 Enterococcus, 1 E. coli)
- None of the babies with B/L renal pelvic dilatation had bladder outlet obstruction

Table: Antenatally diagnosed renal anomalies

Antenatally diagnosed renal anomalies	Number
Bilateral Renal Pelvic Dilatation	11
Unilateral Renal Pelvic Dilatation	10
Ureterocele	0
Duplex kidney	0
Multicystic kidney disease	2
Pelvic kidney	2



Conclusion

- In B/L RPD, targets for antibiotic prophylaxis were met in 82% and 100% patients for urgent renal ultrasound scans
- In U/L RPD, targets for antibiotic prophylaxis were met in 70% and 50% patients for routine renal ultrasound scans
- With a multidisciplinary approach, fetuses with antenatal renal anomalies were able to receive optimal postnatal care