

PRENATALLY DETECTED HYDRONEPHROSIS AND POSTNATAL OUTCOMES IN A COLOMBIAN POPULATION: 10 YEARS OF FOLLOW UP

Introduction

Hydronephrosis is one of congenital abnormalities of renal type more common around the world that is characterized by dilation of the renal pelvis, with or without dilation of the renal calices. It is diagnosed by renal ultrasonography in uterus. Most resolves spontaneously (70-80%) and the rest requires a surgical management (15-20%) and leads to a further risk to evolve to complications such as hypertension and chronic kidney failure.

Objetive

To characterize children with a diagnosis of hydronephrosis detected in uterus in the period between 1995-2005 in Santiago de Cali, Colombia.

Methods

A retrospective descriptive study of a group of 396 pediatric patients between 1995-2005 in three clinical institutions of different levels of complexity in the city of Cali, Colombia that had prenatal diagnosis by ultrasound of CAKUT (Congenital Anomaly of Kidney and Urinary Tract) .We reviewed the records of 236 patients who were diagnosed during the antenatal period with hydronephrosis, receiving attention and follow-up in a Children's hospital .All patients were evaluated post natal with renal ultrasound , taking the renal pelvis anteroposterior diameter (less 7 mm , 8 – 14 mm and higher than 15 mm) as determinant to do Voiding Cystourethrography (VCUG) to rule out a vesicoureteral Reflux ,Dimercaptosuccinic acid (DMSA) scan , or MAG3 scan to rule out a LUTO (lower urinary tract obstruction) or high urinary tract obstruction . All patients remained under antibiotic profilaxis until 6 first months .The patients were followed up for a median time Of 4.5 years.

Results

Maternal mean age was 29.4 +/- 6.4 , 81 from 236 (34.3%) were first pregnancy , 66 (28%) had a second pregnancy , 62 (26.3%) had three or more pregnancies , and 27 (11.4%) didn't have available gynecology information .

Initial ultrasound mean age at detection was 30.2 +/- 6.15 weeks of gestation. Males were 163(69.1%) . The more frequent prenatal hydronephrosis were : bilateral hydronephrosis 90 (38.2%) , unilateral hydronephrosis 76(32.2%) , multicyst kidney disease 23(9.7%) , renal agenesis 1(0.4%) , and others 46(19.5%)(Image 1).

The grade of hydronephrosis were mild 36 (15.3%) , moderate 51 (21.6%) , severe 37 (15.7%) , and graded non specific 112(47.5%) . 137 patients (58.1%) went to VCUG , 24 of them (17.5%) depicted VUR. The final diagnosis were Non obstructive – non reflux hydronephrosis 125 (53%) , VUR 30 (12.7%) , Obstructive hydronephrosis 48(20.3%) , Multicyst – displasic kidney 23 (9.7%) , only kidney 5(2.1%) , Posterior urethral valves 2 (0.8%) , complex anomalies deceased 1(0.4%) , no available data 2 (0.8%). Twenty five (10.6%) patients went to surgical procedures : 2 Posterior urethral valves ablation , 5 nephrectomy , 9 pyeloplastia , 3 vesicoureteral reimplanted , 3 vesicostomy , and 3 other surgical procedures .

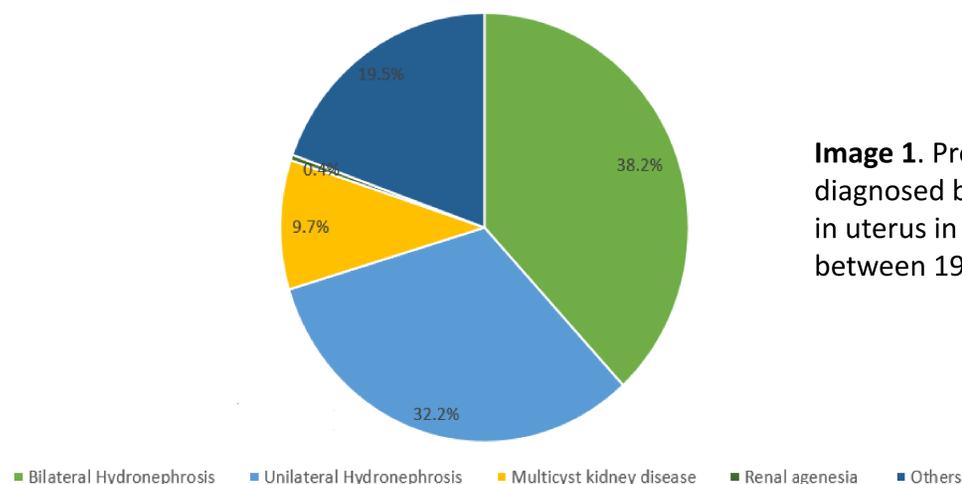


Image 1. Prenatal findings diagnosed by renal ultrasonography in uterus in Cali, Colombia, between 1995-2005.

Conclusions

This is the second regional report in Colombia on post-natal findings in patients identified prenatally as having hydronephrosis. Our population has a high degree of prenatal findings confirmation. Our study sample consisted of a non referred CAKUT population , it was from infants born and follow up in a second and thirth health level of attention . We emphasized the potential renal risk of GFR decline in almost 30% of this population . Our cohort's results are comparable to those previously reported in the literature. Follow up of prenatal hydronephrosis is warranted any time .

Bibliography

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