

Clinical profile and outcome of children who underwent micturating cystourethrogram : A tertiary hospital experience

ABSTRACT

Micturating cystourethrogram (MCUG) is the gold standard test for the diagnosis of vesicoureteric reflux (VUR). The study aims to establish the association between the presence of VUR and renal outcomes. Methods: A cross-sectional retrospective study was conducted in children who were referred for MCUG at a tertiary centre over a 10-year period. Baseline characteristic data and the results of renal ultrasound, MCUG, with renal function were compiled and analysed. Fisher Exact test was used to compare between the grade of VUR and renal outcomes. Simple and multiple logistic regressions were used to examine the risk factors that may contribute to the development of VUR. Results: There were 136 children included in total. Forty-five had VUR, (31 [68%] high-grade, 14 [32%] low-grade, respectively). One third (33.3%) were surgically treated, 29 (64.4%) developed chronic kidney disease (CKD), and 18 (40%) developed renal scarring. Children with urinary tract infection (UTI) and hydroureter have 4.19 and 3.40 times the odds of developing VUR, respectively. Conclusion: The presence of hydroureter from ultrasound is a strong indicator of underlying VUR and justifies the rationale of requesting for MCUG, especially for those with recurrent UTI. However, this study failed to demonstrate significant association between the presence of VUR and complications of renal scarring and CKD.