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## **The efficacy of transurethral sub ureteric injection of bulking agent in the management of vesicoureteral reflux**

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## Abstract

**Purpose:** To evaluate the efficacy of subureteric transurethral bulking agent injection in the treatment of vesicoureteral reflux (VUR) in pediatric patients.

**Materials and Methods:** Total of 52 patients (9 males, 43 female) with mean age of  $7.25 \pm 4.97$  years who underwent subureteric bulking agent injection between 2016-2020 were included. All patients were diagnosed to have VUR (unilateral 29 (55,8%) patients, bilateral 23 (44.2%) patients) on micturation cystourethrogram. All patients had admission for one day and have negative preoperative urine culture. Foley Cather was placed for one day and all patients was given 3<sup>rd</sup> generation cephalosporin antibiotics as prophylactic therapy. On discharged the patients were given oral antibiotic, anticholinergic therapy (when indicated) and regular voiding instructions. All patients had regular follow-up monthly with urine analysis, urine culture and bedside ultrasound for post voiding residual urine measurements, and upper urinary tract evaluation. Micturition cystourethrogram was done on the third month after injection. Preoperative demographic and radiologic characteristics in the terms of: age, sex, VUR grade, unilateral or bilateral VUR, presences urinary tract infection(UTI), renal scaring, voiding dysfunction and injected volume were recorded. The success rate was defined in term of clinical and radiologic outcomes: disappearance or down grading of VUR on MCUG or absence of febrile UTI. The preoperative parameters which may predict the success rate were investigated and the postoperative complications were defined. The mean follow-up period was  $43.58 \pm 14.97$  months.

**Results:** Out of 51 patients, 41 patients could be reached and only 5 patients (12.19%) showed no improving on the radiologic imaging (one of them showed no UTI in postoperative). Seventeen patients (41.45%) showed either complete

