

OUTCOME OF BLADDER NECK INJECTION AFTER EPISPADIAS-EXSTROPHY REPAIR IN CHILDREN

Hypothesis / aims of study

Dextranomer, a highly hydrophilic dextran polymer, solubilized in a base of non-animal stabilized hyaluronic acid, has been approved as an injectable agent for the treatment of childhood vesicoureteric reflux. Herein, we evaluate the outcome of injection therapy for pediatric urinary incontinence after primary epispadias-exstrophy repair and subsequent bladder neck repair with or without augmentation cystoplasty.

Study design, materials and methods

A total of 7 boys with mean age 8.4 (7-14) years with urinary incontinence following primary epispadias-exstrophy repair were included in a prospective study. Of the 7 boys, four with incontinent epispadias were repaired at the age of one year, two with bladder exstrophy were repaired in the first 72 hours of life and one with bladder exstrophy was repaired at the age of one year. All patients required additional continence procedure following repair in the form of bladder neck repair (BNR) and augmentation in 5, BNR only in one and augmentation only in one. Subsequently, all patients were subjected to bladder neck injection. A total of 11 injection sessions with Deflux in 10 and Macroplastique in one were performed. Mean follow up was 1.7 (1-3) years.

Results

Two boys were completely dry (following multiple injections), four had dry interval of 3 hours. No immediate post-operative complications were recorded. Failure of continence was recorded in one boy after 3 sessions of injections. This patient required bladder neck closure and catheterizable stoma. Patient and parental satisfaction were recorded in 6 patients after injection.

Interpretation of results

Bladder neck injection was an easy manoeuvre and was successful in achieving continence in two boys, improved dry interval in four, but failed in one boy due to asymmetrical bladder neck fibrosis following bladder neck repair even after multiple injection sessions. This boy achieved continence with bladder neck closure and urinary diversion with a catheterizable stoma. No intra-operative difficulty was encountered after previous injection for such patient. Patients were followed up for up to 3 years with no deterioration of continence.

Concluding message

Bladder neck injection is an easy minimally invasive manoeuvre for achieving urinary continence following epispadias-exstrophy repair in children and after additional continence procedures. Continence can be achieved with patient and parental satisfaction. A large study group is recommended for adequate assessment of injection therapy for urinary incontinence following epispadias-exstrophy repair.

Disclosures

Funding: none **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Assiut University Hospital Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes