

LONG TERM UROLOGICAL OUTCOME OF PAEDIATRIC SPINAL CORD INJURY.

Hypothesis / aims of study

Paediatric spinal cord injury (SCI) patients face many neuro-urological challenges. Management of these is a dynamic process since the disorders change over time. We present the long term neurourological outcomes in ten paediatric SCI patients.

Study design, materials and methods

Ten traumatic SCI patients (2 cervical, 7 thoracic, 1 lumbar), six males, four females with mean age at injury of 13.6 years (6 complete / 4 incomplete) underwent treatment, for a mean period of 13.1 years. Characteristics of injury were noted. Three diagnostic subgroups, neurogenic detrusor overactivity (NDO), acontractile detrusor and low compliance were made. Complications were recorded and operative procedures with follow up noted.

Results

In NDO (n=6) initial bladder management, supra pubic catheterisation (SPC), (n=1), condom drainage (n=2), urge voiding (n=2) and self-intermittent catheterisation (SIC), (n=1) changed to, ileal conduit (n=1), SARSI (n=1), SIC (n=3) and urge voiding (n=1). Complications were reflux (n=1), kidney scarring with decreased GFR (n=2), hydronephrosis (n=1), kidney stone (n=1), bladder stone (n=1) and small capacity bladder (n=1). Operations included, ileal conduit (n=1), sacral anterior root stimulator implant (SARSI), (n=1), sphincterotomy with stent (n=2), STING (n=1), Cystolitholapaxy (n=1) and SPC (n=1). In acontractile detrusor (n=2), management was SIC (n=2) and complications were small noncompliant bladder (n=1), stress incontinence (n=1). One patient underwent Mitrofanoff and clam ileocystoplasty. In low compliance (n=2) management included SIC (n=1) and urge voiding with SIC (n=1). Complications were urethro-perineal fistula (n=1) and kidney stone (n=1).

Interpretation of results

The bladder management in paediatric SCI patients changes over a period of time. Patients with NDO have greater variation in treatments and higher complications. All patients should be followed up over a long period of time to maintain normal upper tract function

Concluding message

Bladder management in paediatric SCI is dependent on level of injury and changing bladder neurology. Complications are avoided by regular follow up and management based on up to date investigations