Voiding Dysfunction after Successful Anastomotic Urethroplasty for Pelvic Fracture Urethral Injury

Devang J. Desai, Pankaj M. Joshi, Sandesh Surana, Hazen Orabi, Sanjay B. Kulkarni
Kulkarni Reconstructive Urology Center, Pune, India

INTRODUCTION

• Anastomotic urethroplasty is the standard of care for pelvic fracture urethral injuries (PFUI) undergoing definitive surgical management.

• There are a select group of patients who despite having a successful anastomotic urethroplasty have postoperative voiding dysfunction due to unrecognized neurogenic bladder injury.

AIM

Our study aims to evaluate these patients and identify clinical signs to predict these injuries.

MATERIAL & METHODS

• Our institute is a tertiary referral center for reconstructive urology cases.

• We have performed 1064 anastomotic urethroplasty in the last two decades. We retrospectively evaluated our prospectively maintained database. Inclusion criteria was patients with PFUI who underwent a successful anastomotic urethroplasty with postoperative voiding dysfunction.

• Success of anastomotic urethroplasty was determined by a retrograde urethrogram (RGU) and endoscopic evaluation.

• Voiding dysfunction was defined as patients with poor urine flow. We performed urodynamics (UDS) on each of these patients.

RESULTS

• Our series included 6 male patients (average age 27 years) who had PFUI secondary to road traffic accident.

• All patients underwent progressive perineal anastomatic urethroplasty for PFUI (all required step 3 anastomotic urethroplasty).

• Postoperatively these patients had poor flow after catheter removal. A RGU and endoscopy revealed a patent anastomosis. UDS showed neurogenic detrusor underactivity.

• There were variable occurrences of other lower motor neuron findings such as muscle atrophy, fasciculations, sensory loss, areflexia and fecal incontinence.

• The common factor was that all patients had a foot drop on preoperative clinical examination. S2,3 nerve roots supply both the foot and bladder.

• Neurogenic damage to bladder is not evidenced till the urethral anastomoses is performed as all these patients have a suprapubic catheter draining their bladder.

• Foot drop is a simple clinical sign to predict the possibility of neurogenic bladder dysfunction.

SUMMARY / CONCLUSION

• Coexistent neurogenic bladder injury with PFUI is rare but is of paramount importance predicting outcome.

• Our study highlights that the presence of foot drop and other lower motor neuron signs in patients with PFUI is a predictor for voiding dysfunction due to coexistent neurogenic bladder.

• We recommend that these patients should have urodynamics prior to surgical repair and must be counselled accordingly.

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REFERENCES


Contact information

Dr Devang Desai – ddesai@toowoombaurology.com.au