

206

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Title: BLADDER AUTOAUGMENTATION FOR PATIENTS WITH MYELODYSPLASIA: RESULT OF LONG-TERM FOLLOW-UP

Aims of Study:

Bladder autoaugmentation was performed in myelodysplastic patients with low compliant bladder to prevent the progression of upper urinary tract deterioration. We assessed the results of the procedure.

Methods:

Eleven patients with myelodysplasia whose ages ranged from 5 to 41 years old (mean age, 13.5 years old) underwent bladder autoaugmentation between December 1994 and July 1999. The patients were evaluated the urinary system with intravenous pyelography and video urodynamics before surgery. Video urodynamics was performed 1, 3, 6, and 12 months, then yearly after surgery. Patients completed an incontinence questionnaire during routine follow-up visits, and were classified into 4 groups with incontinence grading scale for female stress incontinence.

Procedure:

The bladder was exposed through a Pfannenstiel skin incision. The anterior bladder wall was identified and the peritoneum was swept or sharply dissected off the dome of the bladder. A transverse incision was made through the muscularis of the anterior bladder wall, leaving the mucosa to be intact. From this incision, the detrusor muscle was widely dissected from the bladder mucosa toward superiorly, inferiorly and laterally as possible. In consequence of the above procedure, a large diverticular bulge was created.

Results:

Mean operative time was 270 minutes. Post-operative complications included long-term urine leakage in 3 patients, which required long-time catheter indwelling, and pyelonephritis in 1. The mean catheter indwelling period was 5 days (range, 3 to 50 days). Period of patient follow-up ranged from 18 to 72 months.

Average bladder capacities in all patients were 100 ml before surgery; 205 ml at 1 month; 184 ml at 3 months; and 227 ml at 12 months after surgery. No patients had a decrease in bladder capacity after 12 months. Hydronephrosis presented in 7 of 11 patients before surgery, those disappeared in 4, improved in 1 and persisted in 2 patients. Vesico-ureteral refluxes presented in 5 of 11 patients before surgery, those disappeared in 1 and persisted in 4 patients. Incontinence presented in 8 of 11 patients before surgery, those disappeared in 3 and improved in 5.

Conclusions:

We have reported the long-term results of 11 patients who underwent bladder autoaugmentation. Bladder autoaugmentation showed excellent increase in bladder capacity and prevented the progression of upper urinary tract deterioration. This procedure is useful for the treatment of neurogenic bladder due to myelodysplasia.