

AUGMENTATION CYSTOPLASTY IN THE ERA OF BOTULINUM TOXIN: A CONTEMPORARY ASSESSMENT OF INDICATIONS AND OUTCOMES IN PATIENTS WITH NEUROGENIC BLADDER DYSFUNCTION

Hypothesis / aims of study

Augmentation cystoplasty (AC) is the traditional surgical procedure for the treatment of the hostile neurogenic bladder. Recently, new oral and intravesical agents have expanded the therapeutic armamentarium. In this context, we analysed the contemporary indications and outcomes of AC in neuropaths.

Study design, materials and methods

Patients undergoing AC (2004-2014) were identified through the operative records. Case notes were retrieved and reviewed.

Results

Forty-eight patients underwent AC (40 males, 8 females) with spinal injury (72.9%), Spina bifida (18.8%) and other disorders (8.3%). Mean-age was 37. Mean follow-up was 69.8 months. Indications included incontinence (40%) and upper-tract protection (60%). Botulinum toxin was administered in 22%. Prior to surgery patients were counselled for a mean time of 12.4 months (range 3-43).

Ileal (70.8%), sigmoid (20.8%) and ileo-caecal segments (8.3%) were used. Concomitant procedures included mitrofanoff (8.3%), autologous sling (6.3%) and artificial sphincter cuff/complete system implantation (16.9%). Clavien III-V complications occurred in 8.3% with no 90-day mortality. The mean length of stay was 10.5 days.

Post-operatively 85% continent and performing intermittent catheterisation. Mean bladder capacity \pm SD increased from 446.0 \pm 235.9ml to 820.4 \pm 258.8ml ($p < 0.0001$). Upper tract dilatation resolved in 92.3%.

Long-term complications included incontinence (8.3%), bowel dysfunction (6.3%) and hernia (6.3%). One patient died (urothelial carcinoma). Following an additional procedure the continence rate increased to 92%.

Interpretation of results

The number of procedures performed over 10 years studied decreased from the previous decade of practice (84), reflecting the shift in management of neurogenic bladder toward oral and intravesical therapies. Patients underwent a considerable period of counselling prior to surgery which we suggest is contributory to the outcomes, which are comparable to the published literature. Patients are followed up on yearly basis and serious long term complications were uncommon. Notably no patient developed metabolic abnormalities or required renal replacement therapy.

Concluding message

AC continues to be a safe and effective option for managing neuropathic bladder. There was a low incidence of significant long-term complications.

Disclosures

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