

CLEAN INTERMITTENT CATHETERIZATION FOR NEUROUROLOGICAL DISORDERS: WAY BACK TO VOLUTARY MICTURITION?

Hypothesis / aims of study

Clean intermittent catheterization (CIC) as treatment option for neurourological bladder disorders has stood the test of time. However, novel treatment options such as utilization of bio-feedback or Botox as well as increasing routine in the usage of artificial urinary sphincters (AUS), urethral stents and sphincterotomy offer alternatives leading to spontaneous micturition, thus avoiding complications such as urethral injuries and recurrent urinary tract infections (UTIs). Possibilities, outcomes and difficulties of such strategies have been shown and discussed.

Study design, materials and methods

In the past 3 years twelve patients with CIC or permanent bladder drainage treated at our pelvic floor center were analysed retrospectively (5 males, 7 females). Mean age at the point of treatment was 57,3 years. The underlying diseases were Multiple Sclerosis (MS) in 3 patients, Spinal Chord Injury (SCI) in 4 patients and detrusor insufficiency of other origin in the rest of them (5 patients). No wheelchair users were involved. Difficulties with CIC (4x), recurrent UTIs (11x), incontinence (7x) and desire for change of the regimen were indication for treatment.

Results

According to underlying disease, previous course and urodynamic findings the following therapies were administered or combined: Deobstruction was attempted by sphincterotomy (4x), Botox into the sphincter (7x), bio-feedback (3x), urethral stent surpassing the sphincter (2x). One patient received a bladder augmentation surgery. In six out of twelve patients implantation of an AUS was necessary for urinary control. One female patient requires repeated Botox injections. Summarizing, nine out of the twelve patients enjoy voluntary voiding at 4 – 9 micturitions per day, two female patients remain on CIC. For one patient follow up could not be finished.

Interpretation of results

In certain patients performing CIC or at permanent bladder drainage, both continence and voluntary micturition may be restored. Preservation of the upper urinary tract by establishing low-pressure storage and avoiding infections by terminating CIC, as well as providing voluntary micturition and continence, represent the classical goals of medical care for neurourological patients. By combining modern treatment options, these targets may be met.

Concluding message

Conversion from CIC/permanent bladder drainage to voluntary micturition may be feasible in select cases. Bladder emptying at low pressures is the first goal to achieve. This may require a combination of different conservative and/or surgical treatment options. Urinary control may need to be supported by implantation of an AUS.

Disclosures

Funding: Karl Landsteiner Institute for research on functional diseases and tumors of the urinary tract **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** we only retrospectively analyzed patients who had received standard treatment at our facility. **Helsinki:** Yes **Informed Consent:** Yes