Diseases of the genito-urinary system

Lectures

CO03-007-e

Uro-gynaecological rehabilitation
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Pelvic floor rehabilitation (PFR) is an important and recommended strategy for the treatment of many uro-gynaecological disorders including overactive bladder (OAB), urinary incontinence (UI), chronic pelvic pain (CPP) and pelvic organ prolapse (POP). The recognised pioneer of PFR is the American gynaecologist Arnold Kegel who, over 60 years ago, proposed pelvic floor muscles exercises to prevent and/or treat female UI. Kegel’s techniques were also successfully used by other authors, but until the first International Consultation on Incontinence (ICI) there was no scientific consensus regarding the efficacy of PFR (Monaco, 1998).

PFR consists of biofeedback (BFB), functional electrical stimulation (FES), pelvic floor muscle training (PFMT), endovaginal or vaginal cones (VC), and behavioural approaches. BFB allows the subject to modify the unconscious physiological events, while FES is aimed to inhibit OAB, and improve pelvic “awareness”, in association with pelvic floor muscles activity. PFMT plays an extremely important role in the conservative treatment of OAB, UI and CPP, but in the near future it should also be proposed as an actual secondary and primary prevention of pelvic floor dysfunction. Many Authors use the rehabilitation techniques according to heterogeneous protocols: the best results are obtained when protocols requiring intensive and/or supervised PFMT are followed.

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CO009-001-e

Urodynamic for PMR in MS, SCI, Stroke and Parkinson disease
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Keywords: Neurogenic bladder; Urodynamic

Urodynamic is a key tool for assessment of urinary disorders in many neurological disorders. Urodynamic assess the function and dysfunction of the lower urinary tract, trying to reproduce the patient’s complaints and provide a pathophysiological explanation to guide therapeutics. But for each of the different etiologies, specific questions are addressed regarding the value of urodynamic for diagnostic, prognostic, evaluation of treatment efficacy, and follow-up.

Urodynamic in SCI is of particular importance regarding the risk for upper urinary tract impairment and morbidity and mortality related to urinary disorders. Each arm of treatment in this population requires specific evaluation and urodynamic goals. Urodynamic in MS is a subject of debate in the literature and scientific society guidelines. The place of urodynamic in this pathology will be discussed. Urodynamic in Parkinson disease help the clinician to make the diagnostic of Parkinson disease or multiple system atrophy. Because of the epidemiology, age and gender, the question of association with prolapse and benign prostate hypertrophy is a frequent.

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Oral communications

CO003-001-e

Adjustable balloons in the treatment of neurogenic stress urinary incontinence: A French retrospective multicentric study
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Keywords: Prostheses and implants; Neurogenic stress urinary incontinence; Spinal cord injury; Radiculopathy; Treatment outcomes; Adjustable balloons

Objectives.– To assess efficacy and complications of the neurogenic stress urinary incontinence by adjustable continence therapy.

Patients and method.– Retrospective multicentric study with all neurologics patients having had an adjustable continence therapy in different French university hospitals.

Results.– From 2001 to 2013, 102 patients have been implanted. Mean± SD at implantation was 48.4 ± 16.5 years. The mean follow-up was 2.7 ± 2.3 years. The mean urethral closure-pressure was 33.2 ± 2.3 cm H2O. Among patients, 3.9% were dry, 37.3% were improved 50% or greater of whom 11.8% of patients with 90% or greater improvement, 39.2% were improved less than 50% of whom 5.9% with treatment failure. Complications were found in 74
patients (109 balloons): 23 infected balloons, 33 migrated balloons, 21 device failures, 26 urethral erosions, 26 cutaneous erosions. We had less migration in spastic patients than flaccid patients (P=0.041).

Conclusion.– Adjustable balloons continence therapy is a minimally invasive therapy of stress urinary incontinence. It is less evaluated in population of neurologic patients. It’s a good alternative at artificial urethral sphincter.

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CO03-004-e
Long-term functional results of artificial urinary sphincter AMS 800® in neurological patients

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Keywords: Artificial urinary sphincter; Neurogenic bladder; Urinary incontinence

Objective.– To report the very long-term functional results of artificial urinary sphincter (AUS) in neurological patients.

Methods.– Neurological patients diagnosed with urinary incontinence due to sphincter deficiency and undergoing AUS (AMS 800®) implantation between 1985 and 1992 were enrolled. Continence, defined by no pad/condom usage, explantation and revision rates were reported.

Results.– Ten patients were included: 4 spinal cord injury, 2 spina bifida, 3 complex malformations and 1 perineal traumatism. Median age was 40 years (IQR 29.5–42.5). Prior continence surgery was reported by 7 patients. AUS was implanted in perirenal (n = 5) or periurethral position (n = 5). Median follow-up was 15.5 years (IQR 9.2–20.7). The explantation of the device due to erosion was reported in 3 patients. The 10-, 15-, 20-year explantation-free survival rate was 87.5%. The 10-, 15-year revision-free survival rate was 28% and 0% respectively. At last follow-up, 70% patients were continent.

Discussion.– AUS provided good functional outcomes in neurological patients but the revision rates were important in the very long run.

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CO03-003-e
Nocturnal urinary disorders in Multiple Sclerosis: Clinical and urodynamic study of 309 patients

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Keywords: Nocturia; Multiple Sclerosis; Overactive Bladder; Anticholinergic; Sleep

Objective.– To determine the prevalence and urodynamic conditions of nocturnal urinary disorder (NUD) in multiple sclerosis patients (MS).

Methods.– Retrospective and monocentric study conducted on 309 MS patients, with analysis of clinical and urodynamic data. Three groups were considered: control group (MS without NUD), nocturia group (NG), nocturnal incontinence group (NI).

Results.– A total of 53.3% had NUD (35.7% NI). Overactive bladder symptom score was statistically greater in NUD group (P < 0.00001). Cystomanometric capacity and volume of first uninhibited detrusor contraction was statistically lower in NUD (P < 0.0001) with no significant difference between NG and NI.

Discussion.– NUD is a very frequent problem in MS and overactive detrusor is the main factor of this condition. Specific treatment of such a dysfunction may improve quality of life of these patients and decrease the potential risk of failure during sleep.

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CO03-005-e
Long-term functional outcomes after management of neurogenic bladder dysfunction with ileal conduit in an adult spina bifida population: A monocentric experience among a multidisciplinary team

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Keywords: Spina bifida; Ileal conduit; Neurogenic bladder

Objective.– To assess cutaneous non-continent urinary diversion with an ileal conduit (CNCUD) in adult spina bifida patients.

Methods.– Adult spina bifida patients with a neurogenic bladder treated by CNCUD between 1990 and 2011 in our centre were evaluated. The following data were collected: surgery indication, early and late postoperative complications, renal function, stoma management.

Results.– Overall, 13 patients (9 men, 4 women) were enrolled. Median age was 30.5 years (IQR 19–36.7). Median follow-up was 8.4 years (IQR 1,8–10.7). Preoperative voiding modalities were normal through the urethra (n = 5), intermittent catheterization (n = 5) and indwelling catheter (n = 3). Surgery indication was urinary incontinence associated to failure of self-intermittent catheterization (n = 8), renal insufficiency (n = 2), vesico-cutaneous fistulae (n = 2), cancer (n = 1).

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CO03-003-e
Continent cutaneous diversion in adult neurogenic patients: Long-term urological and functional results in a multidisciplinary team

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Keywords: Neurogenic bladder; Continent cutaneous urinary diversion; Intermittent catheterization; Renal function

Objective.– To report long-term functional outcomes of cutaneous continent urinary diversion (CCUD) in adult neurological patients.

Methods.– Between July 2001 and January 2012, patients with a neurogenic bladder who underwent CCUD according to Mitrofanoff’s/Monti’s/Casale’s principle were enrolled. Stomal and urethral continence, renal function, urodynamic parameters and complications were assessed.

Results.– Overall, 84 consecutive patients were included, median age 40 years (IQR 17–76). Median follow-up time was 55 months (IQR 35–95). 95% of patients underwent an augmentation cystoplasty. Fifty-one patients underwent a concomitant procedure for continence. Two post-operative severe complications (grade III–IV) were reported. Seven patients had a stoma or tube stenosis: six were treated by dilation, one received surgery. Eight patients had bladder stone managed with endoscopy. Seven patients had remnant stress urine leakage through the urethra, which was treated surgically: four received periurethral balloons (ACT/Pro-ACT®), 2 a fascial sling, and 1 a tension-free vaginal tape. Creatinine clearance had improved post-operatively in all patients. At last follow-up, 100% of patients had a catheterizable continent stoma and urethral continence was achieved in 91%.

Discussion.– CCUD allowed these patients to keep self-ISC as a voiding pattern and to be continent without any appliance. Upper urinary tract was protected.

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