**Purpose.**– The purpose of this work was to describe the different types of micturition disorders observed in children and to examine the different phases of management.

**Patients and methods.**– This was a retrospective study of 32 children (28 girls, 4 boys) treated for micturition disorders from January 2005 to March 2011 in the urodynamic unit of the physical medicine and rehabilitation unit of the El Kassab National Orthopaedic Institute in Tunis. The clinical history and urodynamic results as well as the neuroradiographic findings and urodynamic study were recorded. Patients were followed at semestrial consultations.

**Results.**– Mean patient age was 7 years. Urinary infections were the most common clinical manifestation (84.37%). Bladder-urethral reflex was observed in 40.6%. Early stage renal failure was observed in one patient. The urodynamic explorations revealed bladder-sphincter dyssynergia in 87.5%. Medical treatment was effective in 75%. For five children (15.6%), the clinical state improved and in three others (1.25%) conservative treatment failed. Duration of treatment in completely cured children was 12 to 36 months. Mean time to resolution of the symptoms was 2.6 years.

**Discussion.**– Functional micturition disorders are common in children, involving a poorly stabilised or non-neurogenic bladder. History taking, physical examination, radiography, and urodynamic explorations can eliminate the diagnosis of neurogenic bladder and orient the diagnosis and therapeutic management to micturition dysfunction. This disorder may have serious consequences for the upper urinary tract. In order to avoid these problems, early diagnosis and treatment is necessary. Conservative treatment (medication associated with biofeedback re-education) in children with micturitional disorders is effective when applied in an appropriate manner (particularly in children with detrusor instability). In certain situations, intermittent catheterization or even surgery may be required.

**Conclusion.**– Urinary disorders are more common in patients with scleroderma than in the general population. Urinary disorders are more common than bladder overflow activity.


**P011–EN**

**Transcutaneous electric stimulation (TENS) for the treatment of neurogenic and idiopathic overactive bladder: 24 cases**

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**Objective.**– Demonstrate the efficacy of TENS for the treatment of neurogenic and idiopathic overactive bladder (NOAB, IOAB).

**Patients and methods.**– Retrospective study of 24 patients with symptoms of overactive bladder who failed to respond to anticholinergic medication. The patients were divided into two groups by etiology: group 1 post-trauma NOAB; group 2: IOAB. All patients were treated with TENS at the level S3. An adapted protocol including one stimulation per hour for each session, three sessions per week for 12 weeks was instituted without use of anticholinergic agents. The patients were reviewed at treatment end then at 3 and 9 months. Urinary flow and micturition diary were used to assess outcome: volume, intermission interval (diurne, nocturne), frequency of urinary leakage between self-catheterizations for IOAB.

**Results.**– Group 1 included 15 patients (1 f, 14 m), mean age 31 years (27–35 years). Most patients (66.6%) were totally continent with decreased miction frequency and increased miction volume at the end of the protocol. This result was sustained at 3 and 9 months. Only 3 patients had recurrent symptoms and were not satisfied with the protocol, requesting an alternative treatment.

**Conclusion.**– The early results of TENS in patients with idiopathic or neurogenic OAB are encouraging. This is a simple and effective non-invasive technique with low cost. Long-term outcome remains to be determined.


**P010–EN**

**Evaluation of bladder-sphincter disorders scleroderma: 69 patients**

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**Keywords:** Systemic scleroderma; Bladder-sphincter disorders; Self-administered questionnaire.

**Introduction.**– Scleroderma is a rare chronic disease of the immune system. Bladder involvement is exceptional.

**Patients and methods.**– This study included 293 patients with scleroderma constituting the cohort of the Internal Medicine Unit of the Cochin Hospital. In March 2010, a self-administered questionnaire was addressed to these patients. The variables recorded were: age, gender, duration of scleroderma, bladder-sphincter disorders, presence of urinary infections.

**Results.**– In all, 131 (44%) of patients responded with 114 completed questionnaires. Five patients had died, the address was inaccurate for six, two patients declined participation in the study and one patient was hospitalized and could not complete the questionnaire. For the 114 patients included in the analysis, 69 (23.5% of the 293 initial questionnaires) were correctly identified. The other participants did not provide their name, initials or file number. Fifty-six (81.2%) were female. Mean age, in general at the time of evaluation, was 56 ± 14.4 years. Men were 2 years older than women. Mean duration of the disease the day of the evaluation was 9.3 ± 7.7 years. Twenty-seven women (48.21%) presented exercise-induced incontinence, 48 (85.71%) had bladder overactivity, and 24 (42.85%) dysuria. Twenty-two women had a urinary tract infection (39.28%), including three with fever (5.35%) and 21 (37.5%) treated with antibiotics. Two men presented exercise-induced urinary incontinence (15.38%) and 12 men had an overactive bladder (92.30%). Dysuria was present in 7 men (53.38%). Two men had a urinary tract infection (15.38%), including one with fever (7.69%); both were treated with antibiotics.

**Conclusion.**– Scleroderma is a rare chronic disease of the immune system. Bladder-sphincter disorders, presence of urinary infections and idiopathic overactive bladder (NOAB, IOAB).