Author(s): F.Cappellano, S.Santambrogio, D.Riva, M.Pizzoccaro, G.M. Ciotti and F.Catanzaro

Institution, city, country: UF di Urologia , Policlinico Multimedica , Sesto San Giovanni (Milano) ITALY

Title (type in CAPITAL LETTERS, leave one blank line before the text):PERCUTANEOUS TIBIALIS NERVE STIMULATION (PTNS) TO MANAGE IRRITAVE SYMPTOMS OF LOWER URINARY TRACT: IS REALLY EFFECTIVE ?

AIMS OF STUDY
Patients with irritative symptoms of lower urinary tract (urgency-frequency sindrome and overactive bladder) are usually treated with a few conservative modalities before undergoing sacral roots neuromodulation or surgery. Aim of our study is the clinical evaluation of a new ambulatory therapy (Percutaneous Tibialis Nerve Stimulation) .

METHODS
We enrolled in our study 20 consecutive patients with irritative symptoms of lower urinary tract non responsive to conservative therapy (drugs, pelvic floor electrostimulation, biofeedback) and unwilling to undergo a percutaneous sacral roots neuromodulation as a second line choice .
From November 1998 to March 2000 12 females and 8 males underwent a tibialis nerve electrostimulation on ambulatory basis. Mean age was 49.7 years (24-80) and data are available for 16 of them (9 females and 7 males). Urodynamic evaluation revealed an isolated urethral instability in 6 pts and detrusor overactivity in 10 pts PTNS was performed according to the methodic proposed by Stoller , inserting a 34 gauge stailess steel needle approximately 3 fingers breadth cephalad from the medial malleolus and just posterior to the margin of the tibia (point SP6).
Patients were treated on ambulatory basis with one session per week (30 minutes) for 10 weeks
Post voiding diaries were compared to the baseline values and some of responders underwent a manteinance therapy every 20 to 30 days.

RESULTS
A successful outcome of the treatment has been defined as an improvement > 90% in main symptom At a mean follow up of 9.7 months (16-3) 5 pts out of 16 (31.2%) have had an improvement > 90% in their main symptom and 1 have had an unsatisfactory intermediate response (>50%) . If we look at the outcome we can observe that in urgency-frequency sindrome group due to urethral instability the success rate was about 80% (5 out of 6) while in that with detrusor overactivity was only 10% (1 out of 10) Our data overlap Mitchell's ones (Eur Urol 35, abstr. 63, 1999) about urgency frequency sindrome but are far from those reported by Stoller (81%) including patients with detrusor overactivity, urgency frequency sindrome and pelvic pain.
There were no adverse effects of therapy including infection , hemorrage or nerve injuries. It is interesting to observe how 5 out of 6 respoders were affected by urgency frequency sindrome with urodynamic evidence of isolated urethral instability.
About 10 non responders pts, 7 of them underwent a PNE test without any improvement , 1 was diagnosed with interstitial cystitis and 1 was lost at follow up . One more pts has been scheduled for a PNE test.

Type your text within this frame If 2nd page is needed use Abstract Form A-2.

Author(s) F.Cappellano, S.Santambrogio, D.Riva, M.Pizzoccaro, G.M. Ciotti and F.Catanzaro

CONCLUSION
Stimulation of the posterior tibialis nerve at SP6 point activates S2-S3 in afferent way and during stimulation we recorded EMG activity from the pelvic floor . PTNS represents a minimally invasive procedure to treat patients diagnosed with urgency frequency sindrome due to pelvic floor dysfunction (utethral ınstability) non responsive to conventional therapy. The procedure is very cheap, safe and low time consuming and represents one more choice in the armamentarium of the neurourologist to treat irritative symptoms of lower urınary tract .
We obtaıned a poor response ın patients affected by detrusor overactivity and actually we haven't any experience wıth pelvic pain , even ıf this represents an interestıng fıeld of study .
Patients who faıled to respond to PTNS have had a poor response also with sacral roots neuromodulation (PNE test) · we can suppose that the pathway of stimulatıon ıs the same and probably PTNS could be predictive of the outcome ın those patıents who fail to respond.
Obviously results need to be confirmed at longer follow up .

Type your text within thıs frame. Use this page only ıf second sheet is necessary!