

IS URETHRAL DISBEHAVIORAL PATTERN (UDP) THE MAIN TARGET OF PERCUTANEOUS TIBIALIS NERVE NEUROMODULATION (PTNM)? OUR 4 YEARS EXPERIENCE.

Aims of Study

To evaluate the long term effect of PTNM on patients with lower urinary tract symptoms and pelvic pain , considering the UDP as the main responsible of their symptoms and the potential target of neuromodulation.

Methods

From February 1999 to March 2003 we enrolled in our study 81 patients with symptoms of lower urinary tract and pelvic pain not responsive to conservative therapy . Data are available for 55 of them (30 females, 25 males - mean age 55.5 years) with a mean follow up of 27 months (48-6). PTNM was performed according to the methodic proposed by Stoller. Patient itself increased the amplitude during the stimulation session up to the maximum sensory threshold. All of them were treated on outpatient basis with one session per week (lasting 30 minutes) for 10 weeks. Voiding diary and visual pain analogue were compared to the baseline values . 28/55 pts (50.9%) completed a QoL questionnaire before the PTNM and at each follow up visit (3,6,12 months). Periodical PTNM sessions were requested in the responders group to consolidate the result.

Results

Patients who showed an improvement > 50% in their main symptom have been considered as partial responders and those with >90% improvement as complete responders. 30 pts were considered responders (54.5%) and 25 (45.5%) non responders. Among responders, 21 pts have had an improvement >90% and 16 of them revealed some UDP (hyperactivity or spasticity). If we consider the 9 pts with >50% improvement, 6 of them had some UDP , while among the 25 non responder pts only 11 showed UDP. QoL index increased from 51 to 87 in the responders group and from 46 to 57 in the non responders one. All responders with >50% improvement and most of non responders underwent a PNE test and 5 of them were successfully implanted . When we analyze our results we have to consider the low overall success rate of PTNM (54.5%) including pts with different lower urinary tract dysfunctions . But if we look at the urgency-frequency group (24/55 pts) 21 of them have been responders (87.5%) ; 12 out of 13 with an improvement >90% had some UDP . It's also very interesting to observe how also in urge incontinence (8/14) and pelvic pain (3/5) groups the best responders are those with some UDP impairment.

Conclusions

Most of pts with lower urinary tract symptoms probably have some pathological urethral impairment and it's more evident in those complaining about urgency frequency syndrome: in this group we obtained our best results (about 90%). Considering responder and non responder groups in the aggregate , quite apart from clinical presentation, some UDP is more evident in complete (76.2%) and partial (66.7%) responders and significantly lower in non responders (44%). Our impression is that the urethral behavior has a key role in the pathophysiology of lower urinary tract symptoms and it's the main target of PTNM and neuromodulation in general way .