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ECONOMICAL AND SOCIAL IMPACT OF SACRAL NERVE STIMULATION THERAPY IN 62 PATIENTS WITH LOWER URINARY TRACT DYSFUNCTION

Aims of Study

Lower urinary tract dysfunction (LUTS) such as detrusor instability or urinary retention are strongly impacting pathologies for both quality of life, economical aspects and social living ranging from the single patient to the whole social and economical environment including family activities. The aim of our investigation is to record changes in frequency of hospitalizations, urological and general practitioner visits before and after sacral nerve stimulation therapy implant. Expenses for pads, catheters and drugs are also investigated.

Methods

From February 2000 to September 2002 on 62 patients (mean age 50 years old, from 22 to 70) enrolled in the economic session of the Italian Sacral Nerve Modulation Registry. Social and economical data were recorded in order to compare costs with clinical results of sacral nerve modulation therapy in patients with LUTS. On the whole population considered 41 were incontinent patients (61 % female) mean age 53 (22-68) and 21 patient (71 % female) mean age 46 (25-70) affected by chronic urinary retention.

Results

We performed a quarterly based analysis, comparing the baseline data to the last follow up available (12th month). Visits to the general practitioner decreased from 1.1 to 0.05 ($p < 0.01$), visits to the urologist did not change significantly from baseline (1.5 to 1.2). Diagnostic tests decreased from 2 to 0.8 ($p < 0.01$). In the use of pads we observed a major change from a daily use of 2.1 (three months expenses per patient of € 120.96) to 0.5 (three months expenses per patient of € 28.8) ($p = 0.08$); and for urinary retention the use of catheters decreased from 1.1 baseline (three months expenses per patient of € 178.2) to 0.1 at 12 months (three months expenses per patient of € 16.2) ($p = 0.09$). Costs of drug consumption decreased significantly ($p < 0.05$) from € 47.24 to € 10.53.

Conclusions

Sacral nerve modulation has demonstrated to be efficient in improving the economic management of patients with LUTS. This is highly evident in the reduction of daily consumption of pads and catheters (which is the major cost-driver of urinary disorders), but also results in a reduction of costs due to general practitioner visits, urological visits, diagnostic tests, and drug consumption. Urological visits do not change significantly from baseline to 12 months after the implant: this could be due to fine-tuning of therapy modulation setting. Optimal treatment can be defined at the end of a "process" which could take several months, during which specialist visits decrease progressively. Generally, one year after the implant the therapy is stabilized; a longer follow up is therefore needed in order to evaluate this aspect. Furthermore, the reduction in the use of pads and catheters not only affects direct costs but also patients' social interaction with positive effects on quality of life (already published elsewhere(1)).

References

(1) Cappellano F, Bertapelle P, Spinelli M, Catanzaro F, Carone R, Zanollo A, De Seta F, Giardiello G for the Italian Group of Sacral Neuromodulation (GINS). Quality of life assessment in patients who undergo sacral neuromodulation implant for urge incontinence: an additional tool for evaluating outcome. The Journal of Urology, Vol. 166, 2277-2290; December 2001.