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SACRAL NEUROMODULATION IN URINARY RETENTION SECONDARY TO PELVIC ENDOMETRIOSIS ERADICATION

Hypothesis / aims of study

Excision of deep infiltrative endometriotic lesions with extensive adhesiolysis does increase the risk of post-operative bladder dysfunction. In our experience about 18% of patients complains chronic non-obstructive urinary retention (UR), often together with severe constipation. In selected cases sacral nerve neuromodulation (SNM) has been a therapeutic option and hereby we report our results in such patients.

Study design, materials and methods

We reviewed our SNM database from January 2003 to December 2008 and we found 29 patients referred to our department for non-obstructive UR lasting 9 months or more after laparoscopic eradication of severe endometriosis. All the patients completed a 4-days micturition diaries and presented pelvic floor hypertonicity at urological evaluation, detrusor hypocontractility at urodynamics and neuropathy at neurophysiological tests. In 4 cases there was simultaneous constipation. 22 women were selected for percutaneous nerve evaluation and completed bladder diaries during the stimulation time. Although all the subjects performed intermittent self-catheterization (CIC) only 9 presented complete UR, while 13 were able to void but with significant bladder residual (RPM). 18 subjects experienced 50% or more improvement in UR symptoms and subsequently underwent permanent implantation. The mean age at implant was 34 years (range 23-45).

Results

10/18 (55%) patients has a complete response to SNM with a mean follow-up of 22 months, while 7/18 (38%) has a partial resolution of UR and need to perform 1-2 CIC by day. All the patients with incomplete UR had a complete response. We also observed faster and better results in the 9 younger women (age less than 30 years) independently from the extension of surgical resection of endometriosis even if 5 of them underwent simultaneous other operations (ileal resection in 3 and vesico-ureteral neo-anastomosis in 2). In 2/4 patients also constipation has improved.

Interpretation of results

The effectiviness of SNM in the treatment of non-obstructive UR is well-known (1). A few articles have been written about this therapy in UR after pelvic damage and they usually regard a small number of cases (2). Referring to UR secondary to endometriosis eradication, only Gehrich (3) reported his experience in which 2/4 women treated with SNM achieved a partial success. In our study the number of patients is bigger - due to the presence in our hospital of a Center of excellence in laparoscopic treatment for endometriosis - and SNM has cured 93% of patients. Specifically 55% of them have obtained a complete and persistent resolution of UR and in this group are mostly included the younger women with partial UR. The good results reported are probably related to the young age of our patients, the early management of UR with CIC and the accurate selection of strongly determinated women.

Concluding message

SNM is a good alternative to the standard therapy in chronic UR after surgical interventions for endometriosis. The young age and a correct management of the UR seem to be favourable predictive factors for the best response to SNM.

References

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Specify source of funding or grant	**None**
Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**No**
This study did not require eithics committee approval because	**Survey of clinical cases**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**No**