

INTERMITTENT PELVIC FLOOR STIMULATION FOR OVER ACTIVE BLADDER PATIENTS

Hypothesis / aims of study

Electrostimulation has been used extensively and successfully for the treatment of urinary dysfunction. In this study we present the effect of intermittent pelvic floor stimulation on overactive bladder (OAB) patients who failed conservative therapeutic management. OAB is a collection of urinary storage symptoms defined by the International Continence Society as urgency, with or without urge incontinence, usually with frequency and nocturia.

Study design, materials and methods

Seventeen female patients, mean age 58 years old (range, 23-79 years), were eligible for permanent intermittent pelvic floor stimulation and participated in a self-controlled, prospective study. All patients underwent a screening procedure and subsequently a simple surgical procedure in which a bipolar electrode was placed adjacent to the mid-urethra and connected to a pulse generator located subcutaneously in the anterior abdominal wall.

We present here the efficacy of the treatment on two major objective symptoms: urinary urge incontinence (UUI) and urinary frequency (UF). All subjects completed a voiding diary at baseline and 6 months post operation.

Results

Leakage episodes were reduced by 65.4%, from 12.0 ± 8.6 times/day at baseline to 4.2 ± 4.3 at 6 months, $p < 0.01$ (median 9.0 and 2.3, respectively). Five out of 17 patients were completely dry, nine patients had more than a 50% reduction in leakage episodes, two had an average reduction of 32% and for one patient the number of leakage episodes increased from 2.7 to 4.7 times per day. The average of UF changed by 41.4%, from 19.2 ± 7.8 times/day at baseline to 11.3 ± 4.8 at study endpoint, $p < 0.01$ (median 16.7 and 11.0, respectively). Six out of 17 subjects experienced more than a 50% reduction in UF; for ten patients the average reduction of UF was 31% and one patient reported no change in UF.

Interpretation of results

For seven patients (41.2%) who had the procedure the symptoms improved significantly and they are very satisfied with the treatment. Five patients (29.4%) experienced moderate improvement in OAB symptoms and for the last five subjects (29.4%) at the 6 month follow-up visit they had a slight change in symptoms and are slightly satisfied with pelvic floor electrostimulation.

Concluding message

Electrostimulation of the pelvic floor musculature positively affected the quality of life of the OAB patients included in this cohort. The intermediate results of the study strongly correlate with the changes in patient quality of life.

References

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CLINICAL TRIAL REGISTRATION: This clinical trial has not yet been registered in a public clinical trials registry.

HUMAN SUBJECTS: This study was approved by the Groote Schuur Hospital, Cape Town, South Africa; Sydney Adventist Hospital, Sydney, Australia; Royal Melbourne Hospital, Melbourne, Australia; Kings College Hospital, London, United Kingdom and followed the Declaration of Helsinki Informed consent was obtained from the patients.