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Title: Extracorporeal Magnetic Innervation Therapy [EXMI] for the treatment of urinary incontinence : 200 consecutive cases.

Aims of Study:

Non invasive Magnetic stimulation (ExMI) has been demonstrated to be effective in the conservative management of stress incontinent women.(Ref 1) The purpose of this study was to evaluate of efficiency of EXMI for urinary incontinence [stress and urge] patients when applied to Korean women.

Methods:

We adopted the use of Extracorporeal Magnetic Innervation because we believed that our patients would prefer this treatment to conventional methods. The patients are attracted by the noninvasive, painless, office based nature of this treatment. It is also independent of their active compliance as the contractions produced by the electro-magnetic field are involuntary. A total of 200 consecutive urinary incontinence Korean patients (av. Age 52.7 yrs) were each treated with an average of 12 sessions of ExMI over six weeks. A specialist incontinence Nurse supervised these patients during treatment. Mean parity was 2.8 and 99 percent of births were delivered vaginally. Stress incontinence was highly correlated to vaginal delivery in this group. Average birth weight was 3.5 kg [7.7 pounds]. Mean baseline QOL score was 66.2. The bladder control assessment questionnaire developed (Ref 2) a medical history, and a gynecological examination were used to assess the patients before and following the ExMI treatment. Special questions are asked for delivery method, and birth weight, and whether HRT was used. A Q-tip, and Bonney tests were performed. Vaginal resting pressure and contraction pressures were also measured. Patients with UTIs were treated prior to ExMI treatment. Urodynamics was not performed due to the reluctance of many women to undergo this invasive diagnostic procedure.

Results:

60 % of all patients expressed a subjective improvement of greater than 50% over the baseline assessment in terms of QOL. 18% of patients reported a 25% to 50% improvement over baseline. 22% of patients reported less than 25% improvement over baseline. Of these "poor responders", 7.5% reported "No change" compared to the baseline assessment. Those patients with mild stress incontinence had a better result compared to those with more severe symptoms. More than half of the non-responders had previous histories of gynecological surgery and duration of symptoms of more than 5 years. 54% of Patients treated with Urge and Mixed incontinence also reported a satisfactory response (that is, a >50% improvement compared to baseline QOL). Mean improvement of the QOL over baseline for all 200 patients was 47%. Some patients (14%) reported that their vaginal contractility ability was enhanced by the treatment providing an unanticipated improvement in sexual relations for either the woman or her partner.

The compliance is much higher than other non-surgical methods of pelvic floor exercises due to the non-invasive nature of this therapy and due to the fact that the patients do not need to undress in the clinic.

Conclusions:

EXMI is an effective, non-invasive treatment which we now use as a first line treatment choice for all incontinent female patients referred to our hospital. More than 75 percent of patients are very satisfied or satisfied with EXMI chair treatment. In our experience, those with mild to moderate incontinence, without prior pelvic surgery benefit most. 7.5% showed no subjective improvement, although 6 of these 15 patients did not complete more than 8 treatments.

Further follow-up is required to establish whether this treatment will be durable without the need for repeat sessions or without the patients having to adopt active programs of kegel exercises.

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References:

(1) Niall Galloway_ Urology Vol 53, No 6 1999. Pages 1108- 1111. 2.Wagner et al (1996),