

VALIDATION OF TREATMENT WITH SEDATIVE MEDIUM FREQUENCY ELECTROTHERAPY FOR OAB, UII AND LUTS

Hypothesis / aims of study

Standardization Committee of the International Continence Society (ICS) defined Overactive Bladder Syndrome (OAB) as symptoms such as feeling of urgency, with or without urinary incontinence which is often associated with increased daytime urinary frequency and / or night, without the presence of infection or other urological pathologies that can explain this table. The ICS defines the urgency as a "sudden compelling desire to pass urine that is difficult to defer" (1). An effective treatment for these patients remains one of the challenges at present.

The aim of this study is to assess the effectiveness of medium frequency electrotherapy (interferential currents) treatment for OAB, LUTS and urge incontinence (UII).

Study design, materials and methods

Pre-experimental design, case series. Level of evidence III – Grade B.

This study includes 64 patients with irritative voiding symptoms; to which detailed history, complete urodynamic study and 2 year follow-up was performed. The group was composed of 20% men (n=13) and 80% women (n=51) with less than twelve months symptoms in 25% of cases, and more than a year in the remaining 75%; detrusor overactivity was diagnosed in 28% of patients in the urodynamic study. No patient was under pharmacology therapy. All patients diagnosed with neurogenic bladder, acute urinary tract infection, urinary tract malformation and bladder organic pathology, were excluded from the study.

The treatment with medium frequency electrotherapy, interferential currents between 5500Hz and 7500Hz (Combi-200®, Gymna®), was performed using transvaginal or transrectal application, depending on gender. The frequency was increased progressively over the first six sessions (twice a week), starting with a frequency of 5500Hz until reaching a frequency of 7500Hz, which remained until the end of treatment.

All patients signed an informed consent before inclusion in the study, as established by the Declaration of Helsinki. Statistical analysis of data was performed using SPSS 21.0 for Windows. The statistical methods used were descriptive statistics for quantitative variables (procedure DESCRIPTIVE) and descriptive statistics for qualitative variables (FRECUENCIAS procedure), contingency tables for the relationship between qualitative variables (procedure CROSSTABS and chi-square test).

Results

The symptom of UII was resolved in 93.8% of patients ($p<0.0001$). Feelings of urgency disappeared in 91.3% of patients ($p<0.0001$). Regarding the increased daytime frequency, between the pre and post measures, this was corrected in 77.8% of patients ($p<0.0001$); nocturia while disappeared in 100% of patients ($p<0.0001$). The feeling of incomplete bladder emptying was solved in 82.6% ($p<0.0001$) and the sensation of pain / burning urination in 94.1% of them ($p<0.0001$). After completing this study 85% of patients had been discharged by clinical improvement or resolution of their symptoms. Regarding the duration of treatment, 31% of patients required less than 4 sessions for the resolution of the symptoms, 37% between 4 and 10 sessions and the remaining 10% of the patients 20 sessions.

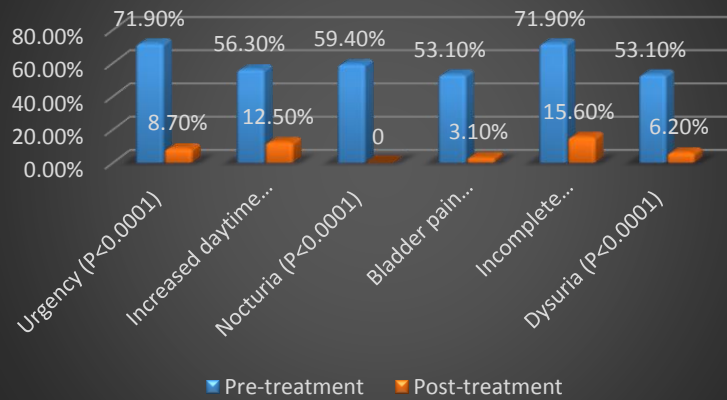
Interpretation of results

Trends in the management of OAB are developing different concepts and treatments. There is international consensus about the question that the initial treatment of these kind of symptoms should be conservative and only if it does not respond surgical alternatives. In general, conservative treatment is easy to implement, is low cost and with few side effects and, moreover, does not impair the effects of other treatments (2). The objectives focus on functional recovery and control of the bladder. Empirical use of anticholinergic drugs and B3 agonists can have good results in addressing the urgency or intravesical instillation administration of hyaluronic acid has variable effects in terms of duration with a loss of efficiency in some cases (3). Physiotherapy approach using sedative type electrotherapy performs well without side effects. The results of therapy we are using are encouraging; not only for the effectiveness itself, which is comparable to that of the best-known conservative treatments, but by the absence of side effects resulting from this type of therapy.

Concluding message

It has been shown that treatment by electrotherapy medium frequency is highly effective in treating OAB, urge urinary incontinence and LUTS.

Pre- and post-treatment results



References

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