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THE EFFECT OF PELVIC FLOOR ELECTROSTIMULATION ON QUALITY OF LIFE OF INTERSTITIAL CYSTITIS PATIENTS

Hypothesis / aims of study

Painful Bladder Syndrome/Interstitial Cystitis (PBS/IC) is characterized by pelvic, bladder and perineal pain and urinary frequency, which considerably affect patients' quality of life. One of the aims in treating PBS/IC patients is to improve that aspect of their condition. In our study, we have investigated the effect of pelvic floor electrostimulation using the miniaturTM-I implantable system (BioControl Medical, Yehud, Israel) on quality of life (QOL) of patients with PBS/IC who have failed more conservative management of their condition.

Study design, materials and methods

Between April 2002 and April 2005, 55 female patients 21 to 80 years old (mean age 55.3 years) with refractory IC were implanted with the miniaturTM-I System after presenting positive response to paraurethral external electrostimulation testing in a multinational prospective study. The study protocol was approved by the respective ethical committee in each of the clinical sites. The following QOL questionnaires were completed by the patients, at baseline and at each follow up visit 1-36 months post activation of the system, (mean of 9 months): O'Leary-Sant IC Problems and Symptoms Indices (OLS); Short-Form McGill Pain Questionnaire (SF-MPQ); the pelvic pain and urgency/frequency symptom and bother scale (PUF) and King's College Quality of Life Questionnaire (KQL). P less than 0.05 in a two-tails student's *t*-test performed between baseline and follow up results was used to indicate the significance of their differences.

Results

Of the 55 patients who were implanted with the device, 48 patients filled-in the OLS. SF-MPQ and the PUF questionnaires were completed by 34 and 33 of the patients who passed more than 1-month post-activation, respectively. Eighteen patients completed the KQL. When compared to baseline, the QOL indices were significantly improved on average therapy duration: mean OLS scores were reduced by 29%, from 32.6±7.8 to 23.2±11.8 ($p < 0.001$), SF-MPQ results were decreased significantly from 35.6±10.6 to 19.9±14.0 (44%; $P < 0.001$) and PUF scores were reduced by 29% from 25.9±6.4 down to 18.4±6.0 ($P < 0.001$). KQL scores were reduced by 46.9% from 42.1±10.9 down to 22.3±18.0 ($P < 0.01$). Out of the 55 patients, 7 were not satisfied with the stimulation treatment (12.7%) and withdrew their consent to participate in the study.

Interpretation of results

When analyzed according to the respective domains, the decrease in the OLS problems and PUF bother scores was non-significantly larger than that of the respective symptoms scores. The decrease in the ratings domain score in the SF-MPQ was larger than that of the intensity and overall scores. The KQL showed a more significant decrease in the role limitation, physical and sleep quality domains ($P = 0.001$, 0.003 and 0.004, respectively) than in the personal and emotions domains ($P = 0.007$ and 0.009, respectively).

Concluding message

Electrostimulation of the pelvic floor musculature positively affected the quality of life of the Painful Bladder Syndrome/Interstitial Cystitis patients included in this cohort. The results of the quality of life questionnaires strongly correlate with the changes in IC symptoms of frequency and pain as reflected in the respective patients' voiding and pain diaries.