

Can Electrical Stimulation Therapy Be Helpful for Patients With Chronic Constipation Refractory to Biofeedback Therapy?

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Article: Electrical stimulation therapy in chronic functional constipation: five years' experience in patients refractory to biofeedback therapy and with rectal hyposensitivity

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Adequate pelvic floor retraining by biofeedback therapy improves symptoms in more than 70% of patients with functional defecatory disorders.¹ If symptoms persist in spite of an adequate trial of biofeedback therapy, anorectal tests and colonic transit should be reevaluated.² After reassessment of these tests, adequate treatments can be applied according to results of the tests. In patients with refractory pelvic floor dysfunction, suppositories such as anal application of nitric oxide cream or enemas rather than oral laxatives alone should be considered.² If therapeutic effect is unsatisfactory in patients with refractory pelvic floor dysfunction after retrial of biofeedback therapy with suppositories or enemas, other treatment options are limited. One possible treatment option in these patients is neuromodulation therapy involving modulation of the extrinsic neural control of the pelvic floor through the sacral nerve root stimulation or direct stimulation of the organ, such as the anal canal.³ Early reports showed that anal canal electrical stimulation was associated with improving symptoms of constipation as well as reducing rectal sensory thresholds

in patients with rectal hyposensitivity.^{4,5}

In the issue of this journal, Jung et al⁶ reported 5-year clinical experience of electrical stimulation therapy in patients with chronic functional constipation refractory to biofeedback therapy. According to their research, 59.2% (87/147) of patients refractory to biofeedback therapy improved after anal canal electrical stimulation. The 147 patients consisted of 88 patients that were refractory to biofeedback therapy without rectal hyposensitivity and 59 that had rectal hyposensitivity. Interestingly, the response rate was higher in patients without rectal hyposensitivity than in those with rectal hyposensitivity. The reason is unclear why patients without rectal hyposensitivity showed a higher response rate.

Rectal hyposensitivity was first described in 1951,⁷ and is defined as diminished sensation of the rectum to all kinds of stimuli.³ In 1993, Gladman et al⁸ reported 23% of patients with intractable constipation, 10% of patients with fecal incontinence and 27% of patients with incontinence associated with con-

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stipation had rectal hyposensitivity. It is not clear whether rectal hyposensitivity is one of the causes for constipation and fecal incontinence or is a manifestation of these disorders. Several studies show that normalization of rectal hyposensitivity using a variety of interventions such as biofeedback therapy, neuromodulation, or surgery was associated with clinical improvement.⁹⁻¹¹ However, there is no established treatment for constipation associated with rectal hyposensitivity.

In the issue of this journal, Jung et al⁶ showed that clinical symptoms and some rectal sensory parameters improved after anal canal electrical stimulation in 51% of patients with constipation and rectal hyposensitivity refractory to biofeedback therapy. Anal canal electrical stimulation technique is relatively simple, less invasive than sacral nerve stimulation, and can be widely used in clinical practice. However, there are several limitations in this study.⁴ This is a single center, retrospective study, which cannot provide a proven conclusion. Further well designed prospective studies that include strict criteria of patient inclusion, timing of analysis for efficacy, establishment of standard procedure protocol and long-term results are needed to identify patients who will most likely benefit from anal canal electrical stimulation.

In conclusion, electrical stimulation therapy can be helpful in some patients with functional constipation refractory to biofeedback therapy. However, further studies are needed to elucidate mechanism of electrical stimulation therapy for improving symptoms in patients without rectal hyposensitivity, and to clarify predictive factors associated with beneficial effects.

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