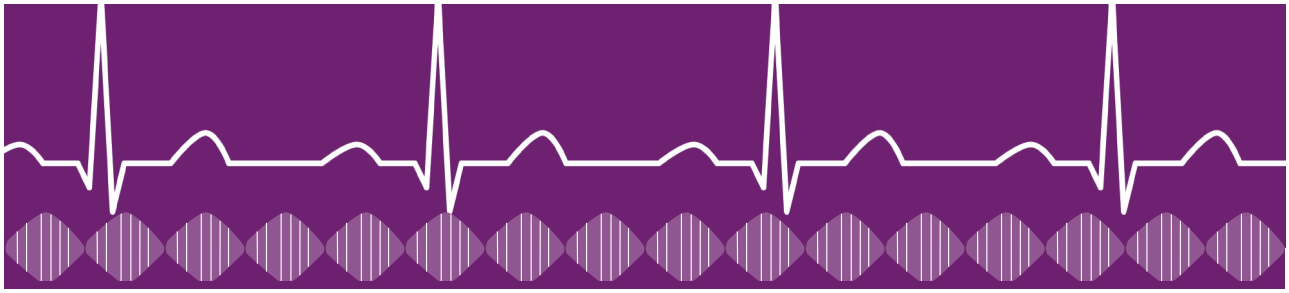


ACCELERATE YOUR PATIENTS' RECOVERY



EL PHYSIOTHERAPY INFORMATION BULLETIN

PHYSIOTHERAPY IN GASTROENTEROLOGICAL PATHOLOGIES

Functional dyspepsia

Functional dyspepsia is a symptoms complex characterised by upper abdominal discomfort or pain, nausea, vomiting, bloating, early satiety, and anorexia in the absence of organic disease. The aetiology of this disease is poorly understood (1). The main aim of the treatment of functional dyspepsia is to reduce or eliminate the symptoms and thus to improve the conditions of the patient.

Standard pharmacological treatment includes prokinetics, analgesics, H₂-receptor antagonists, proton pump inhibitors, antacids, serotonin receptor antagonists, and antidepressants. This treatment often has low efficacy and might cause side effects associated with the drugs (2, 3). The patients with functional dyspepsia which is refractory to the drug treatments would require other therapeutic options.

Treatment of these pathological conditions using electrotherapy modalities such as transcutaneous electroacupuncture (TEA) showed successful results without any reported adverse reactions (4). It accelerates gastric emptying, inhibits gastrointestinal motility, increases plasma levels of neuropeptide Y, stimulates food intake and reduces the symptom scores.

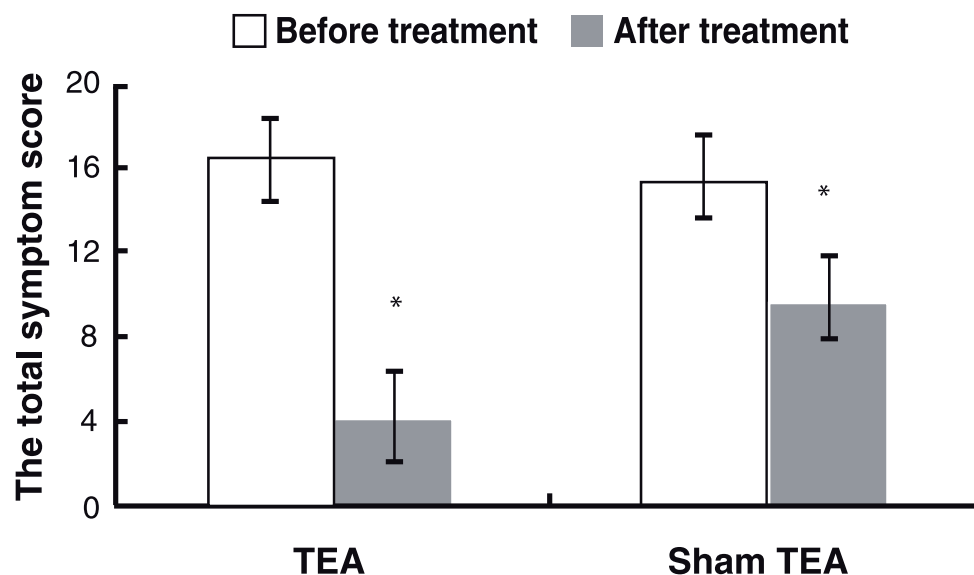


Figure 1. The effect of TEA on dyspeptic symptoms (S. Liu et al. *Neurogastroenterology & Motility* 2008; 20 (11): 1204-1211)

The results indicated a marked statistically significant ($p \leq 0.001$) improvement in the total symptom score from 16.5 ± 1.9 to 4.2 ± 1.5 following the 2-week TEA treatment.

References

1. Timmons S, Liston R, Moriarty KJ. Functional dyspepsia: motor abnormalities, sensory dysfunction, and therapeutic options. *Am J Gastroenterol* 2004; 99: 739-749
2. Mönkemüller K, Malfertheiner P. Drug treatment of functional dyspepsia. *World J Gastroenterol* 2006; 12(17): 2694-2700
3. Myers RP, McLaughlin K, Hollomby D. Acute interstitial nephritis due to omeprazole. *Am J Gastroenterol* 2001; 96(12): 3428-3431
4. Liu S, Peng S, Hou X, Ke M, Chen JD. Transcutaneous electroacupuncture improves dyspeptic symptoms and increases high frequency heart rate variability in patients with functional dyspepsia. *Neurogastroenterol Motil* 2008; 20(11): 1204-1211

Idiopathic fecal incontinence

Fecal incontinence is a disabling pathological condition. Few therapeutic tools are available for treating idiopathic anal incontinence (1).

The use of transcutaneous electrical stimulation (TENS) of posterior tibial nerve showed encouraging results for treatment of the disease. The patients were treated 20 minutes daily for 4 weeks and the results were estimated according to the Wexner's score before and after the treatment period (1).

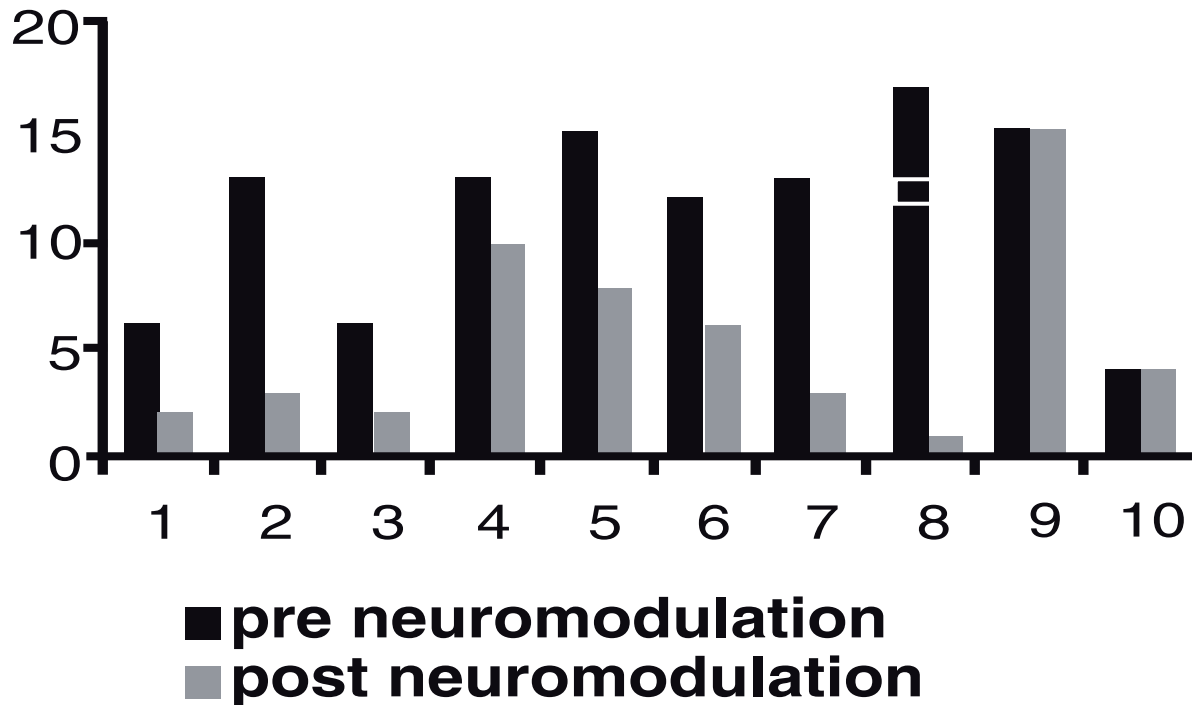


Figure 1. Incontinence score pre- and post-4 week neurostimulation (M. Queralto et al. International Journal of Colorectal Disease 2006; 21: 670-672)

Wexner's scores were improved in eight of the ten patients in 4 weeks. Mean improvement in the score was more than 60% (statistically significant difference $p = 0.0046$, Wilcoxon rank test). No adverse event was observed.

References

1. Queralto M, Portier G, Cabarrot PH, Bonnaud G, Chotard JP, Nadrigny M, Lazorthes F. Preliminary results of peripheral transcutaneous neuromodulation in the treatment of idiopathic fecal incontinence. *Int J Colorectal Dis* 2006; 21: 670-672

Some other gastrointestinal pathologies effectively treated using physiotherapy techniques

Pathology	Technique	Source
Irritable bowel syndrome	TENS Body awareness therapy (BAT)	Xiao WB, Liu YL. <i>Digestive Diseases and Sciences</i> 2004; 49 (2): 312-319 Eriksson EM et al. <i>World Journal of Gastroenterology</i> 2007; 13 (23): 3206-3214
Inflammatory bowel disease	TENS Low intensity exercise	Vitton V et al. <i>Inflammatory Bowel Diseases</i> 2009; 15 (3): 402-405 Loudon CP et al. <i>American Journal of Gastroenterology</i> 1999; 94 (3): 697-703
Biliary dyskinesia	TENS Electroacupuncture	Blaut U et al. <i>European Journal of Gastroenterology & Hepatology</i> 2003; 15 (1): 21-26 Lee SK et al. <i>Gastrointestinal Endoscopy</i> 2001; 53: 211-216
Haemorrhoids	Direct current electrotherapy	Izadpanah A, Hosseini SV. <i>International Journal of Surgery</i> 2005; 3 (4): 258-262 Schubach G. <i>Diseases of the Colon & Rectum</i> 2004; 47: 1990

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