

PERISTEEN TRANSANAL IRRIGATION SYSTEM FOR THE TREATMENT OF NEUROGENIC BOWEL DYSFUNCTION AND ABDOMINAL PAIN

Hypothesis / aims of study

Transanal irrigation of the rectum (TAI) and colon is designed to assist the evacuation of faeces from the bowel by introducing water into these compartments via the anus. Patients with neurologic bowel disease experience not only the discomfort of an irregular bowel clearance but also very often chronic abdominal pain and recurrent urinary tract infections. Data from literature have already shown the efficacy of (TAI) on improving bowel emptying but there is a lack regarding the contribute of this system on reducing abdominal pain. The aim of this study was to evaluate if the use of TAI for neuropathic constipation could also relief symptoms in those subjects with associated chronic abdominal pain.

Study design, materials and methods

A prospective study was conducted on the first cohort of adult patients affected with spinal cord lesions, neuropathic bowel dysfunction and urinary tract infections. Patients with neurogenic bowel disturbance who did not satisfactorily respond to conventional bowel management were enrolled. In particular were enrolled patients who had these problems: employing more than half an hour attempting to evacuate each day, symptoms of autonomic dysreflexia or before or during defecation, abdominal pain before or during evacuation, recurrent urinary tract infections. Before the first use of the system, Macrogol was administered two days before to assure bowel free from chronic faecal impaction.

Patients were selected following the directions of consensus review of best practice of TAI in adults. A previously described and validated Neurogenic Bowel Dysfunction score (NBD) was used to assess bowel function. Abdominal pain was evaluated by a Visual Analogic Scale (VAS), from 0=no discomfort to 10=severe discomfort. These questionnaires were administered before and after treatment. An urinalysis was performed before of the treatment, then 3 and 6 months. Peristeen TAI composed of a coated rectal balloon catheter, manual pump and water container. After the first visit in which it was determined if the patients could receive treatment and trained, they performed treatment every day per 10 days, then on alternate days.

Results

Twenty patients were referred for TAI during the study period. Mean time of using Peristeen TAI was 12 months and mean length of follow-up was about 3 months. All patients were noted to have an improvement in their chronic neuropathic constipation and abdominal pain, increasing in quality of life scores. VAS and NBD score were significantly different before and after. In particular, before treatment patients scored at VAS a mean value of 7.64 ± 0.29 , while after-treatment they scored a mean 3.64 ± 0.29 ; NBD score before treatment showed a mean value of 23.28 ± 3.14 and post-treatment of $1,92 \pm 0.76$. Then 3 months there was a negativity of urinalysis. Even after 6 months there were no infections present in urine.

Interpretation of results

Spinal cord lesions affect colorectal motility, transit times and bowel emptying, with consequent constipation leading to abdominal pain, faecal incontinence, or a combination of both. Although these symptoms are not life-threatening, they may have a severe impact on quality of life and increase levels of anxiety and depression. Many methods are used to deal with constipation and faecal incontinence, including conservative and surgical approaches. Intake of high rates of fibers by the diet and administration of laxatives are used in the prevention and treatment of constipation and overflow faecal pseudoincontinence. TAI is a system that helps to achieve a regular evacuation. The effect of water administration is provided by a simple mechanical wash-out effect because the administration of water generates colonic mass movements. The results of this experience confirm the efficacy of TAI on improving faeces evacuation but allow us to show that this outcome is also associated with a statistically significant reduction of VAS scores relative to chronic abdominal pain. This data should enforce clinicians to investigate and treat possible bowel dysfunctions in neurogenic individuals and identify those subjects who can benefit from TAI with the aim to obtain a regular bowel clearance, preventing possible complications, and to improve quality of secondary to abdominal pain reduction.

Concluding message

Peristeen TAI appears to be a safe and effective bowel management system, which improves bowel function and quality of life in patients affected with chronic neuropathic constipation. Abdominal pain decreases significantly with satisfaction of the patients. Comprehensive training of the patient is central to a safe and efficient longterm use of TAI. Urinary infections related have disappeared in all cases.

References

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Disclosures

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