A Randomized, Controlled Trial of Transanal Irrigation Versus Conservative Bowel Management in Spinal Cord–Injured Patients

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Introduction
Bowel dysfunction in patients with spinal cord injury often causes constipation, fecal incontinence, or a combination of both with a documented impact on quality of life. The aim of the study was to compare transanal irrigation (TAI) (Peristeen®, Coloplast) with conservative bowel management (best supportive bowel care without irrigation).

Methodology
In a prospective, randomized, controlled, multicenter trial involving 5 specialized European spinal cord injury centers, 87 patients with spinal cord injury with neurogenic bowel dysfunction (NBD) were randomly assigned to either TAI (Peristeen, Coloplast) (42 patients) or conservative bowel management (45 patients) for a 10-week trial period.

The primary endpoints of the study were scores on the Cleveland Clinic constipation scoring system and St Mark’s fecal incontinence grading system.

Secondary endpoints included the NBD score and a modification of the American Society of Colon and Rectal Surgeons (ASCRS) fecal incontinence score a symptom-related quality-of-life score from which 4 subscales can be extracted: lifestyle [range, 1–4, with 4 representing high quality of life], coping behaviour, depression/self-perception [range, 1–5, with 5 representing high quality of life], and embarrassment. The remaining secondary endpoints were assessed on numeric box scales: bowel function (range, 0–10, 10 = perfect function), influence on daily activities (range, 0–10, 10 = no influence), and general satisfaction (range, 0–10, 10 = perfect satisfaction). At termination, the influence of the current bowel management on quality of life (QoL) was assessed on a numeric box scale (range, 0–10, 0 = great reduction and 10 = great improvement).

Results
Comparing TAI with conservative bowel management at termination of the study, the mean (SD) scores were as follows: Cleveland Clinic constipation scoring system (range, 0–30, 30 = severe symptoms) was 10.3 (4.4) versus 13.2 (3.4) (P = .0016), St. Mark’s fecal incontinence grading system (range, 0–24, 24 = severe symptoms) was 5.0 (4.6) versus 7.3 (4.0) (P = .015), and the Neurogenic Bowel Dysfunction Score (range, 0–47, 47 = severe symptoms) was 10.4 (6.8) versus 13.3 (6.4) (P = .048) (Figure 1). The remaining secondary endpoints showed a significant benefit of TAI in 5 out of 8 endpoints (Table 1). Urinary tract infections (UTIs) treated with antibiotics were also reduced in the TAI group (5.9% versus 15.5%) (P = .0052).

Conclusion
Compared with conservative bowel management TAI (Peristeen, Coloplast) significantly reduced constipation and fecal incontinence scores, improved symptom-related quality of life, and reduced the number of UTIs.