

Transanal Irrigation Reduces Recurrent Urinary Tract Infections in Neurological Patients: Evidence of the Bowel-Bladder Interaction

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Abstract #425

INTRODUCTION

Recurrent urinary tract infections (rUTIs) are common in neurological patients and may be associated with neurogenic bowel dysfunction. Impaired rectal emptying could increase urinary infection risk.

Aim of the study: to evaluate whether transanal irrigation (TAI) reduces rUTIs frequency in patients with neurogenic bowel dysfunction.

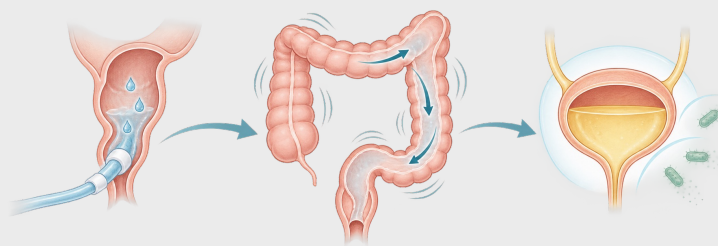


Figure. Proposed pathway linking TAI, improved bowel emptying and reduced rUTI risk.

METHODS

Prospective study including neurological patients with bowel dysfunction and documented rUTIs. Participants underwent a structured TAI programme.

Baseline assessment included **rUTI frequency, urinalysis and culture, antibiotic use, bowel function (Wexner and Bristol scores) and bowel related QoL (VAS 0- 10)**. Follow-up was performed at **1, 3 and 6 months**.

The **primary outcome** was change in r-UTI frequency; **secondary outcomes** included bowel function, antibiotic use, QoL, adherence, and safety.

RESULTS

20 patients 8 males, 12 females Mean age: 65.1 ± 7.2 years

- rUTIs decreased from 6.2 ± 1.1 /year at baseline to:
 - * 2.0 ± 0.7 /month at 1 month
 - * 1.1 ± 0.6 /month at 3 months
 - * 0.7 ± 0.6 /month at 6 months $p < 0.001$
- Wexner score improved from 18.4 ± 4.4 to 7.2 ± 3.5 at 6 months ($p < 0.001$).
- Antibiotic use decreased in 17/20 patients (85%).
- VAS improved from 3.5 ± 1.9 to 1.9 ± 1.9 ($p < 0.001$).
- Adherence was 89%.
- No major adverse events were reported.

CONCLUSIONS

TAI significantly reduced rUTIs and improved bowel function and quality of life in neurological patients. These findings support an integrated bowel-bladder approach to prevent recurrent urinary infections.