

Quality of life and prevention of bacteriuria with transanal irrigation in multiple sclerosis: short-term results of a single cohort study

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HYPOTHESIS / AIMS OF STUDY

Multiple sclerosis (MS) is a common disabling neurological disease in young adults. Most patients experience bowel and bladder dysfunction, reporting a wide spectrum of symptoms that significantly negatively impact social activities and psycho-emotional state. Transanal irrigation (TAI) is a method of managing such symptoms by introducing water via the anus, and the method has been demonstrated to improve quality of life, to be more feasible compared with previous methods and is well tolerated by the patients. We aimed to investigate efficacy of TAI in the prevention of bacteriuria/urinary tract infections (UTIs) and its role in improving quality of life in a single cohort of multiple sclerosis (MS) patients.

STUDY DESIGN, MATERIALS AND METHODS

MS patients with bowel and urinary dysfunctions were selected. All the patients underwent colonoscopy to rule out gastrointestinal comorbidities contraindicating the use of TAI. All patients were trained to use TAI in a standardized manner by the same clinical nurse specialist. TAI was performed daily at the beginning, and adjustments to the regime of irrigation were made by the trainer and patient according to a standardized protocol already published³. We investigated the quality of life (QoL) and the incidence of bacteriuria. The quality of life (QoL) was evaluated by the physical (PCS) and mental component (MCS) scales of the SF-36 questionnaire at baseline and 3-months follow-up. Urine culture was obtained at 1- and 3-months follow-up.

RESULTS

Nine consecutive MS patients (5 females, 4 males; mean age 50 years, range 30-60) were enrolled between April and September 2017. Six patients were on clean intermittent catheterization (CIC) regular treatment. All the patients were followed over 3 months, at which there was 100% rate of continuation of TAI. Evaluation by the SF-36 questionnaire showed a significant improvement either in the SF-36 mental component (MC) from 46 (35-55) at baseline to 55 (45-60) ($p < 0.01$) and in the SF-36 physical component (PC) from 44 (31-50) at baseline to 53 (43-59) ($p < 0.01$). Urine culture at 1-month follow-up was positive ($>10^5$ CFU/ml) in 7 patients, sustained by *E. Coli*, *K. Pneumoniae* and *E. Faecalis* (respectively in 3, 2 and 1 cases). At 3-months follow up, urine culture was positive in one patient ($p < 0,01$).

INTERPRETATION OF RESULTS

Our study investigated the outcome of TAI in a small sample of 9 MS patients analyzing short-term follow up data on bacteriuria and QoL either in its physical and mental component. Therefore, short-term results led us to consider TAI a valid instrument that improved QoL and bacteriuria incidence in the majority of patients.

CONCLUSIONS

The short-term data on bacteriuria episodes and QoL suggest that TAI is an effective preventing option for MS patients. Long term results will be collected and a larger cohort of patients is needed to better clarify the role of TAI in preventing urological infections and improving QoL in MS patients.

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