

Del Popolo G<sup>1</sup>, Mosiello G<sup>2</sup>, Pilati C<sup>3</sup>, Lamartina M<sup>4</sup>, Battaglino F<sup>5</sup>, Buffa P<sup>6</sup>, Redaelli T<sup>7</sup>, Lamberti G<sup>8</sup>, Menarini M<sup>9</sup>, Di Benedetto P<sup>10</sup>, De Gennaro M<sup>2</sup>

1. NeuUrology Unit University of Florence Italy, 2. Urodynamic and NeuroUrology Unit Bambino Gesù Children's Hospital Rome Italy, 3. Spinal Unit CTO Hospital , Rome. Italy, 4. Urology Unit Villa delle Ginestre Palermo Italy, 5. Spina Bifida Clinic , Hospital of Vicenza, Italy, 6. Department of Paediatric Surgery , Giannina Gaslini Institute, Genova Italy, 7. Spinal Unit Niguarda Hospital Milan, Italy, 8. Rehabilitation Center Caraglio Hospital Italy, 9. Montecatone Rehabilitation Center Imola, Italy, 10. Rehabilitation Institute Gervasutta, Udine Italy

## **TRANSANAL IRRIGATION IN SPINA BIFIDA PATIENTS: EFFECTS ON QUALITY OF LIFE AND NEUROGENIC BOWEL DYSFUNCTION .**

### Hypothesis / aims of study

Patients with spina bifida ( SB ) or acquired spinal cord lesions (SCL) have commonly neurogenic bowel dysfunction (NBD) . While lower urinary tract dysfunction ( LUTD) are well documented and described , NBD are less discussed and there is limited evidence in the literature supporting any bowel management program. Transanal irrigation (TI) demonstrated to be effective in adult patients with SCL mainly for faecal incontinence . This study was realized to evaluate the effects of TI on Quality of life ( QOL) and NBD symptoms in adults with SB vs SCL .

### Study design, materials and methods

12 SB patients with severe NBD ( Group A ), mean age 22.6 years were enrolled in this multicentric study. As control group we considered 14 traumatic spinal cord injury (SCI) patients , mean age 35.3 years ( Group B). Patients were classified according to International standards for classification of Spinal Cord Injuries. The lesions were sensory complete respectively in 75%(A) and 92,9% (B), mobility impaired in 41.7%(A) and 100%(B), hands functionality was normal in all. Exclusion criteria were: mental instability or disability, implant of sacral nerve stimulation, previous abdominal surgery, evidence of bowel obstruction or inflammatory bowel disease. Inclusion criteria were: minimum age of 18 years old, severe NBD with unsatisfactory bowel management. Constipation was the most predominant symptom. TI was performed using an integrated enema continence catheter , Peristeen system ( Coloplast A/S, Denmark ) . All patients were evaluated, before and after 3 weeks treatment, using a short validate questionnaire designed by a group of experts in order to measure the treatment efficacy regarding NBD and the impact on QOL. The statistical analysis was performed using McNemar Test and Sign Test.

### Results

NBD: symptoms during and after evacuation, leakage or incontinence, constipation, ameliorated in 66.5% ( Group A) and 64.2% ( Group B ) .QOL was referred as improved by 75% and 57.1% respectively.

### Interpretation of results

TI seems to be effective for constipation as well as for incontinence, reducing the time necessary for evacuation , the use of manual evacuation, pharmaceuticals and level of dependency. The ECC is a simple therapeutic method of managing NBD resulting in significant improvement in quality of life. TI showed same effectiveness in patients with SB and SCI.

### Concluding message

TI must be considered in all neurological patients as first therapeutic approach before more invasive treatment modalities as Malone antegrade continence enema (MACE) or construction of a permanent left side colostomy.

### References

- 1) Gastroenterology( 2006) 131:738-747
- 2) Spinal Cord ( 1997) ; 35: 266 - 274.
- 3) Dis Colon Rectum 2001;44:131-142

**FUNDING: NONE**

**HUMAN SUBJECTS:** This study was approved by the University of Florence Careggi Hospital and followed the Declaration of Helsinki Informed consent was obtained from the patients.