Comparison of clinical effectiveness and compliance with Transanal irrigation treatment: Neurogenic vs. Functional Bowel Disorders

Janice Yiu¹, Marcella Pesce¹, Julie Storrie¹, Anton Emmanuel¹, Natalia Zarate¹

1. GI Physiology Unit, University College Hospital, London, UK

Introduction

Transanal irrigation (TAI) has emerged as one of the therapeutic strategies in managing constipation and faecal incontinence in neurogenic bowel disorders (NBD)². TAI system consists of a control unit with a pump and water bag, depending on mobility and hand function of patients, either a cone or rectal catheter can be used³. An example of a TAI device is shown in Fig. 1. It is unclear whether a cone or rectal catheter can be used³. A retrospective review of selected NBD and FBD patients referred for TAI treatment at University College Hospital between 2013-2017 was carried out. Co-morbidities, medications and patients experience with TAI were evaluated. Clinical impact was assessed using the neurogenic bowel dysfunction score (NBDS). Intra-group comparison pre-TAI and post-TAI were performed.

**Fig. 1 The Qufora Irrisedo cone system².**

Methods

A retrospective review of selected NBD and FBD patients referred for TAI treatment at University College Hospital between 2013-2017 was carried out. Co-morbidities, medications and patients experience with TAI were evaluated. Clinical impact was assessed using the neurogenic bowel dysfunction score (NBDS). Intra-group comparison pre-TAI and post-TAI were performed.

Results

Demographics:
- 63 patients (mean age 50 years, 45 females) were reviewed.
- 39 patients had neurogenic bowel dysfunction, mostly multiple sclerosis and spinal cord injury.
- 24 patients had IBS-C based on Rome III criteria.
- Depression was the most frequently reported comorbidity (8% of NBD and 29% of IBS-C patients).
- At baseline, 82.5% of patients were taking conventional laxatives.
- Chronic use of opioids was comparable between the groups (26.1% of NBD and 21% of IBS-C patients).
- Overall, 37 patients (23 NBD and 14 IBS-C) were compliant to TAI at follow-up.
- Of the initial cohort, 17 patients (7 IBS-C and 10 NBD) were lost at follow up.
- 9 patients (3 IBS-C and 6 NBD) abandoned the treatment.

The mean NBD scores significantly improved across the whole cohort.

| Table 1. Mean NBD scores of the whole cohort |
|---|---|---|
| Pre TAI | Post TAI | p-value |
| 10.8 | 8.3 | 0.01 |

NBD scores significantly improved for IBS-C patients compared to patients with neurogenic bowel disorders.

<table>
<thead>
<tr>
<th>p-value: 0.02</th>
<th>p-value: 0.09</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBS-C Patients</td>
<td>NBD Patients</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IBSC/C Patients</th>
<th>NBD Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre TAI</td>
<td>Post TAI</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

Main reasons for withdrawal:
- Inefficacy of treatment (66.7 % of patients withdrawn)
- TAI-related side effects, such as pain and bloating (33.3 % of patients withdrawn)

Main reasons for continuation of TAI therapy:
- Greater improvement in quality of life (QoL) in NBD patients
- Better bowel function control and more frequent bowel movements in IBS-C patients

Conclusions

In this retrospective study, TAI was an effective treatment for bowel dysfunction in patients with functional bowel disorders, and demonstrated a similar efficacy to that in patients with neurogenic bowel disorders. Although a larger set of prospective data are needed to validate these results, TAI should be considered as an effective strategy in managing patients with functional bowel disorders, for whom traditional treatments have failed.

References