Table A2. Measurements of effectiveness of transanal irrigation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | T0 | T11 | T2/T3 | Control | p-value |
| **DIFFICULTIES ASSOCIATED WITH DEFECATION** |  |  |  |  |  |
| **CCCSS** (range 0-30; 30 = severe symptoms) |  |  |  |  |  |
| Christensen (2006) (mean) |  | 10.3 |  | 13.2 | <0.05 |
| Christensen (2008) (mean) | 13.5 | 10.2 |  |  | <0.001 |
| Hamonet-Torny (note: range 0-20; 20 = severe symptoms) (mean) |  | 0.5 |  |  | n.r. |
| King (mean) |  | 13.1 |  |  |  |
| Loftus (mean) | 19.1 | 11.5 |  |  | <0.001 |
| **Wexner Constipation score** (range 0-30; 30 = severe symptoms) |  |  |  |  |  |
| Preziosi (median) | 12 | 8 |  |  | <0.001 |
| **Frequency of participants with constipation** |  |  |  |  |  |
| Ausili (2018)(%) | 92 | 41 | 50 |  | <0.05 |
| Midrio (%) | 92.7 | 41.5 |  |  | n.r. |
| Patel (%) | 61 | 8 |  |  | <0.001 |
| **Relief in constipation** |  |  |  |  |  |
| Ausili (2010)(%) |  | 60 |  |  | <0.01 |
| **Feeling of incomplete evacuation** |  |  |  |  |  |
| Del Popolo (often/always) (n) | 13 | 0 |  |  | 0.001 |
| Faaborg (daily) (%) |  | 16 |  |  |  |
| López Pereira (often/always) (n) | 24 | 5 |  |  | <0.001 |
| **Frequency of soft stool (Bristol scale type 4/5)** |  |  |  |  |  |
| Ausili(2018) (%) | 3 | 82 | 50 |  | n.r. |
| Midrio (%) | 2.5 | 85.5 |  |  | n.r. |
| **Intestinal transfer time** |  |  |  |  |  |
| Marte (x-ray markers present in the bowel) (n) | 30 | 10.6 |  |  | 0.034 |
| **Frequency of bowel movements** |  |  |  |  |  |
| Choi (per day) (mean) | 1.5 | 2.6 | 2.5 |  | <0.001 |
| **Frequency of evacuation** |  |  |  |  |  |
| Ausili(2010) (range 0-6; 6 = less than once a week) | 4.8 | 2.5 |  |  | <0.01 |
| Midrio (2-3 evacuations/week) (%) | 39.1 | 97.4 |  |  | n.r. |
| **Use of laxatives** |  |  |  |  |  |
| Ausili (2010) (range: 0-2, 0 = no; 2 = yes) | 0.9 | 0.3 |  |  | <0.01 |
| Faaborg (%) |  | 21 |  |  |  |
| Hamonet-Torny (n) | 1.7 | 1.4 |  |  | 0.68/n.s |
| Midrio (%) | 48.8 | 5.1 |  |  | n.r. |
| **Use of other enema** |  |  |  |  |  |
| Hamonet-Torny (%) |  | 10 |  |  |  |
| Midrio (%) | 53.7 | 19.5 |  |  | n.r. |
| **Digital stimulation and/or evacuation of anorectum** |  |  |  |  |  |
| Ausili(2010) (range: 0-6, 0 = daily; 6 = once or more every week) | 4.2 | 1.3 |  |  | <0.01 |
| Del Popolo (most of the times/always) (n) | 17 | 4 |  |  | ≤0.001 |
| Faaborg (%) |  | 23 |  |  |  |
| Hamonet-Torny (%) |  | 20 |  |  |  |
| Midrio (%) | 36.6 | 9.8 |  |  | n.r. |
| **Need for abdominal massage** |  |  |  |  |  |
| Hamonet-Torny (%) |  | 20 |  |  |  |
| **EPISODES OF INCONTINENCE** |  |  |  |  |  |
| **FIGS** |  |  |  |  |  |
| Christensen (2006) (mean) |  | 5.0 |  | 7.3 | <0.05 |
| Christensen (2008) (mean) | 8.5 | 4.5 |  |  | <0.001 |
| King (mean) |  | 14.7 |  |  |  |
| Loftus (mean) | 19.1 | 11.5 |  |  | <0.001 |
| **Wexner Incontinence score** (range 0-20; 20 = severe symptoms) |  |  |  |  |  |
| Preziosi (median) | 12 | 4 |  |  | <0.001 |
| **Frequency of participants with fecal incontinence** |  |  |  |  |  |
| Ausili(2018) (%) | 39 | 11 | 17 |  | <0.05 |
| Del Popolo (occasionally, often, always) (n) | 13 | 5 |  |  | 0.002 |
| Midrio (%) | 39 | 9.8 |  |  | n.r. |
| Patel (%) | 96 | 24 |  |  | <0.001 |
| **Frequency of participants with fecal continence** |  |  |  |  |  |
| Choi (%) | 18.9 | 59.6 | 70.3 |  | n.r. |
| **Frequency of fecal incontinence** |  |  |  |  |  |
| Ausili (2010) (range: 0-13; 13 = daily) | 5.5 | 1.3 |  |  | <0.01 |
| Choi (weekly episodes of fecal incontinence) (n) | 7.3 | 0.4 | 0.4 |  | n.r. |
| López Pereira (never) (n) | 2 | 26 |  |  | <0.0001 |
| Passananti (weekly episodes of fecal incontinence) (n) | 4.8 | 0.9 |  |  | <0.05 |
| **Relief in fecal incontinence** |  |  |  |  |  |
| Ausili(2010) (%) |  | 75 |  |  | <0.01 |
| **Frequency of flatus incontinence** |  |  |  |  |  |
| Ausili (2018)(daily) (%) | 31.7 or 392 | 10 | 10 |  | n.r. |
| Del Popolo (occasionally, often, always) (%) | 13 | 7 |  |  | 0.002 |
| Midrio (daily) (%) | 31.7 | 10 |  |  | n.r. |
| **Flatus incontinence** |  |  |  |  |  |
| Ausili(2010) (range: 0-2, 0 = no; 2 = yes) | 1.5 | 1.1 |  |  | n.s. |
| **Reduction of flatus incontinence** |  |  |  |  |  |
| Loftus |  | n.r. |  |  | <0.05 |
| **IMPACT ON OTHER HEALTH CONCERNS AND HEALTH CARE NEEDS** |  |  |  |  |  |
| **Abdominal pain/bloating** |  |  |  |  |  |
| Del Popolo (often/always) (n) | 13 | 0 |  |  | 0.001 |
| Loftus |  | n.r. |  |  | <0.05 |
| López Pereira (never) | 2 | 13 |  |  | <0.0001 |
| Patel (%) | 24 | 5 |  |  | 0.001 |
| **Perianal skin problems** |  |  |  |  |  |
| Ausili (2010) (range: 0-3, 0 = no; 3 = yes) | 2.2 | 1.8 |  |  | n.s. |
| **Urinary tract infections** |  |  |  |  |  |
| Ausili(2010) (n) | 14 | 6 |  |  | <0.01 |
| Christensen (2006) (%) |  | 5.9 |  | 15.5 | 0.05/n.s. |
| Del Popolo (none) (%) | 21.2 | 88.9 |  |  | n.r |
| Passananti (annual treated UTIs) (n) | 69 | 32 |  |  | n.r. |
| **Number of hospitalisations** |  |  |  |  |  |
| Passananti (annual) (n) | 32 | 19 |  |  | n.r. |
| **TIME NEEDED FOR EVACUATION AND BOWEL CARE, GENERAL SATISFACTION WITH BOWEL HABIT** |  |  |  |  |  |
| **Time used for evacuation** |  |  |  |  |  |
| Ausili (2010) (range: 0-7 = 0-30 min; 7 = more than one hour) | 3.8 | 2.8 |  |  | n.s. |
| Ausili (2018)(shorter than 30 minutes) (%) | 7 | 45.2 | 39 |  | p<0.05 |
| Christiansen (2006) (minutes) (mean) |  | 30.8 |  | 49.1 | 0.094/n.s. |
| Del Popolo (shorter than 30 minutes) (n) | 12 | 25 |  |  | 0.004 |
| Kim (shorter than 30 minutes) (n) | 1 | n.r. | n.r./8 |  | 0.005 |
| López Pereira (shorter than 30 minutes) (n) | 12 | 22 |  |  | n.r. |
| Midrio (shorter than 30 minutes) (%) | 7.3 | 45.2 |  |  | n.r. |
| **Time spent on bowel management** |  |  |  |  |  |
| Choi (minutes per day) (mean) | 29 | 17 | 19 |  | 0.02 |
| Christiansen (2006) (minutes per day) (mean) |  | 47 |  | 74.4 | 0.04 |
| Hamonet-Torny (shorter than 30 minutes) (%) |  | 60 |  |  |  |
| **General satisfaction with bowel habits** |  |  |  |  |  |
| Ausili(2010) (range 0-10, 10 = high degree of satisfaction) | 3.0 | 7.7 |  |  | <0.001 |
| Del Popolo (range 0-10, 10 = high degree of satisfaction) | 4.2 | 6.9 |  |  | 0.001 |
| Hamonet-Torny |  | 9.1 |  |  |  |
| López Pereira | 2.3 | 8.2 |  |  | <0.0001 |
| **QUALITY OF LIFE3** |  |  |  |  |  |
| **NBD score** (range 0-47, 47 = severe symptoms) |  |  |  |  |  |
| Ausili (2010) (mean) | 17.5 | 8.5 |  |  | <0.001 |
| Christensen (2006) (mean) |  | 10.4 |  | 13.3 | <0.05 |
| Christensen (2008) (mean) | 15.3 | 10.8 |  |  | <0.0001 |
| Hamonet-Torny (mean) |  | 6.3 |  |  |  |
| King (mean) |  | 11.8 |  |  |  |
| Loftus (mean) | 24.6 | 14.2 |  |  | <0.005 |
| **NBD score** (severity of problems) |  |  |  |  |  |
| Kim (no or mild problems) (n) | 2 | n.r. | n.r./8 |  | 0.003 |
| Passananti (no or mild problems) (%) | 23 | 60 |  |  | n.r. |
| **NBoDS** (higher scores = more severe symptoms) |  |  |  |  |  |
| Kelly (mean) | 20.2 | 12.8 | 13.2/ 9.67 |  | < 0.05 |
| **FIQOL** (range 29-119, 29 = poor) |  |  |  |  |  |
| King (mean) |  | 92.9 |  |  |  |
| **QoL related to NBD** |  |  |  |  |  |
| Del Popolo (mean) | 4.0 | 7.5 |  |  | 0.001 |
| **CHQ-PF50** (higher scores, indicating better health) |  |  |  |  |  |
| Ausili (2018) (global health) (mean) | 48 | 55 | 58 |  | <0.05 |
| Midrio (global health) (mean difference) |  | -7.7 |  |  | 0.021 |
| **SF-36** (higher scores, indicating better health) |  |  |  |  |  |
| Ausili (2018) (physical/mental component summary) (mean difference) |  | 2/4.9 | 4.7/4.9 |  | <0.05 |
| Midrio (physical/mental component summary) (mean difference) |  | 2/4.9 |  |  | <0.05 |
| Peziosi (mean) | 51.3 | 50.4 |  |  | 0.051/n.s |
| **EQ-5D** (0-100, 100 = best health status) |  |  |  |  |  |
| Passananti (VAS score) (mean) |  | 56.4 | 64.4 |  | n.r. |

n.s. = non-significant

n.r. = not reported

\*A net increase in the answers “never” and “rarely” was reported in the before-after evaluation.

1n higher than total number of participants, because the participants could report more than one symptom.

2Frequency was reported as 31.7% in the main body of the manuscript but 39% in a table.

3Scales lacking total sum/scores are not presented in table, that is FICQOL and American Society of Colon and Rectal Surgeons fecal incontinence score.

CCCSS = Cleveland Clinic Constipation Scoring System; CHQ-PF50 = Child Health Questionnaire; EQ-5D = EuroQoL Five Dimensional Instrument; FIQOL = Fecal Incontinence Quality of Life; FICQOL = Fecal Incontinence and Constipation Quality of Life scale; FIGS = St. Marks Fecal Incontinence Grading System; NBD = Neurogenic Bowel Dysfunction; NBoDS = The Neurogenic Bowel Dysfunction Score; QoL = Quality of Life, SF-36 = The Short Form Health Survey; UTI = Urinary Tract Infection; VAS = visual analogue scale