Methods

Retrospective case review of adult patients having Mitrofanoff channel formation a median of 142 months (range 54-386) ago.

Data collected on continued use of channel and continence

Ileal channels evaluated both as one type of channel material and seperately as single and double ileal channels and those created from a detubularised portion of a pre-existing ileal conduit (tapered ileum)

Results

Total of 176 adult patients
• 165 (93.8%) of patients alive at last review
• Median age = 42 years
• Median follow-up = 60 months (range 2-365)

Outcomes at time of last follow up
• 75.8% (125/165) of channels functioning and in use
• 68.5% (113/165) of patients continent

Appendix

Introduction

First described in paediatrics, the formation of a catheterisable channel utilising the Mitrofanoff principle has been used for the past few decades in adult populations.

We report the long-term data of a large adult cohort undergoing formation of a continent catheterisable channel for a variety of indications.

We aim to elucidate the optimal tissue for channel formation and quantify the risk of stenosis and incontinence.

Results

<table>
<thead>
<tr>
<th>Channel-related complications and revision rates</th>
<th>Appendix</th>
<th>Ileum (single or double in use)</th>
<th>Single Wall</th>
<th>Double Wall</th>
<th>Tapered Ileum (previous conduit)</th>
<th>Centre</th>
<th>Other</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of patients (n, %)</td>
<td>126 (72)</td>
<td>103 (64)</td>
<td>50 (30)</td>
<td>75 (44)</td>
<td>94 (53)</td>
<td>2 (1)</td>
<td>3 (2)</td>
<td>170 (100)</td>
</tr>
<tr>
<td>Recorded channel-related complications (%)</td>
<td>63 (25)</td>
<td>51 (61)</td>
<td>22 (44)</td>
<td>39 (59)</td>
<td>41 (44)</td>
<td>3 (4)</td>
<td>4 (4)</td>
<td>152 (90)</td>
</tr>
<tr>
<td>Catheterisations and stents</td>
<td>33 (14)</td>
<td>30 (30)</td>
<td>14 (28)</td>
<td>17 (23)</td>
<td>17 (19)</td>
<td>1 (1)</td>
<td>1 (1)</td>
<td>71 (44)</td>
</tr>
<tr>
<td>Shock wave lithotripsy</td>
<td>12 (5)</td>
<td>7 (7)</td>
<td>5 (10)</td>
<td>7 (10)</td>
<td>7 (8)</td>
<td>1 (1)</td>
<td>1 (1)</td>
<td>23 (14)</td>
</tr>
<tr>
<td>Patients undergoing major revision (%)</td>
<td>11 (5)</td>
<td>9 (9)</td>
<td>5 (10)</td>
<td>8 (11)</td>
<td>8 (9)</td>
<td>1 (1)</td>
<td>1 (1)</td>
<td>20 (12)</td>
</tr>
</tbody>
</table>

Conclusions

There was no significant difference in outcomes in terms of channel usage at last follow up between any of the materials used to make Mitrofanoff channels

Patients were significantly more likely to have continence issues if channels were made out of ileum

Appendix should be the first choice for Mitrofanoff channel formation in adults

Appendix, Ileum or Ureter – Which is the Best Material for Mitrofanoff Channel Formation in Adults? O’Connor EM¹, Toia B¹, Malde S², Raja L¹, Foley CL³, Taylor CJ², Hamid R¹, Wood DN¹, Ockrim JL¹, Greenwell TJ¹

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