TEMPORARY DEFUNCTIONING TRANSCEAICAL TUBE ILEOSTOMY FOR LEFT COLON RESECTIONST

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Abstract

A new procedure of temporary defunctioning ileostomy by inserting a transceacal tube is described for resection surgery of left colon. This technique was found to be particularly useful in emergency surgery, involving resection anastomosis. This procedure produced minimal leak in only one out of 20 cases, as compared to 20 leaks out of 130 cases in the previous 10 years. A further modification with extra channel for additional colonic decompression was found to be useful. (Indian J Gastroenterol 1983; 2: 75-6)

Key words: Proximal decompression, Prevention of leak.

Introduction

Leak in the anastomotic line is a well known complication following left colon resections, particularly in obstructive lesions and in emergency surgery where a proper bowel preparation is not possible. To avoid this complication many procedures have been adopted in the past including colostomy, ceacoceostomy and Muir's procedure, which have been found to be either ineffective or have drawbacks. A defunctioning transceacal tube ileostomy is difficult to manage, requires a second major surgery for its closure and is likely to have complications of faecal fistula and incisional hernia. We had previously reported that transceacal tube ileostomy reduced the post-operative morbidity and mortality in enteric perforations. We now describe a modified Foley's catheter drainage in ileoceacal region as an alternate procedure to transceacal colostomy.

Material and Methods

Twenty patients, 15 men and 5 women were operated upon—8 had emergency surgery and 12 elective surgery. The indications for surgery were: rectosigmoid cancer (19), rectal cancer (1), splenic flexure cancer (1) and rectal stricture (1). The results in these patients were compared with those in 130 cases who underwent surgery but no diversion procedure in the preceding 10 years.

Procedure

Following the procedure of resection and anastomosis, the appendix was mobilized and a purse-string was applied around the base of the appendix. The appendix was amputated at the base and through the opening a 30 cm Foley's catheter was introduced into the cecum and dissected into the terminal ileum through the ileoceacal valve. Enough air was inflated in the bulb to just occlude the lumen of the terminal ileum. The catheter was then gently pulled out till the bulb lodged against the ileoceacal junction to occlude and prevent the ileal contents escaping into the cecum. The purse-string suture was tightened and the site fixed to the parietal peritoneum after making a nick in the peritoneum so that the tube lay extraviscerally and minimized chances of a leak. The other end was brought out through a stab wound and the ileal contents were drained in a sterile bag (Fig 1).

Table: Incidence of leak

<table>
<thead>
<tr>
<th>Site of resection and anastomosis</th>
<th>Number without diversion (10 yrs)</th>
<th>Number with diversion 20 cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distal transverse colon</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>Splenic flexure</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Descending colon</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Sigmoid colon</td>
<td>58</td>
<td>9</td>
</tr>
<tr>
<td>Anterior resection</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>Stump anastomosis</td>
<td>17</td>
<td>2</td>
</tr>
</tbody>
</table>

Fig 1: Showing the transceacal tube ileostomy. The inflated Foley's bulb lies in the terminal ileum.

Post-operatively the patency of the ileostomy tube was maintained by periodic suction and metronidazole instillation for 14 days. On the 14th day if there was no problem the bulb was deflated and left for 2 more days and then removed on the 16th day. If there was any doubt the tube was left for one more week.

Results

In the previously operated cases which served as controls the incidence of leakage was high as shown in the table. In contrast in this series there was minimal leak only in one patient where the balloon was inflated and left in situ for one more week. When deflated at the end of 21 days there was no leak and the catheter was removed.

It was thought that once the bowel regained motility, there was a chance of the ileal contents entering the cecum. We therefore modified the tube. This new tube is similar to size 30 Foley's catheter with an additional channel with two openings proximal to the bulb (Fig 2). Through this extra channel the cecum can be decompressed. With this modification for colonic decompression we observed no further leakage.

Discussion

For obstructive lesions and during emergency surgery for left colon resections, adequate bowel preparation is usually not possible. Following surgery, the anastomotic...
neuromuscular impulses and the resulting motility transmitted along the colon in response to the presence of faeces in the proximal colon.

Simpson and Srivastava used a standard 22 or 24 French gauge Foley’s catheter and introduced the tip 15 cm beyond the ileo-caecal junction. Their results in 30 cases were encouraging. However, we found that if the bulb is inflated gently against the ileo-caecal valve and occludes the ileo-caecal junction there is less chance for the ileal contents to flow into the cecum.

Conclusion
So far the results with defunctioning transverse colostomy have been encouraging with a very satisfactory post-operative period. The hospital stay is shorter than for a defunctioning colostomy requiring re-surgery for closure. This simple procedure should replace the more standard procedure of colostomy.

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