Reanastomosis – when, how and does it work?

Small bowel Ischaemia Symposium
24.11.2015
WHEN
Try not to reoperate in the 8 day to 6 month window after major intra-abdominal surgery.

Are there exceptions?
How do you get them home in the meantime?
Diane – 68 year old lady

- Failed endovascular dilatation of SMA stenosis at a London Teaching Hospital → SB ischaemia
- Emergency resection – left with 108 cm SB + ascending colon onwards
- T/F St Mark’s at 30 days
- 36 hours later re-infarcted bowel, liver ischaemia, confirmed on CT
- WCC 44, pH 6.8, moribund
- Scoped on table
- Viable stomach, part of SB & colon
- Stoma retracted from abdominal wall – contents into abdomen
- Resected all but 20 cm to stoma, 40 cm stoma to stoma, colon
William - 75 years old

- Presented to a local hospital with an acute abdomen
- Laparotomy by relatively junior registrar – open and closed
- Missed an internal hernia
- Transferred to St Mark’s at 6 weeks – obstruction, low grade sepsis
2 weeks later
– at 2 months post operatively ……
Laura – 27 year old lady

- Transferred from a London Teaching Hospital
- Senior Nurse – Site Practitioner, 28 weeks pregnant
- Acute abdominal pain on duty at night
- Admitted, operation 48 hours later – malrotation – gut ischaemia
- Resection D2 to asc colon
- Large drain into D2
T/F St Mark’s after delivery

PEG tube inserted, removal drain (causing pain)

Discharged with PN – single lumen tunnelled line

Re-anastomosis at 6 months

4-6 bowel actions a day

Back to work at 2 years
HOW
Udam – 80 year old man

- Wife on holiday in Pakistan
- The central heating broke down
- He exenterated himself
- Midline incision – chopped through mesentery and small bowel – 30 cm proximal and 7 cm distal
- After 20 minutes he was still alive and called an ambulance
- At local hospital – end stoma, distal end returned to the abdomen
- At operation – 30 cm dilated proximal jejunum
- 7 cm very attenuated terminal ileum
- Six weeks for bowel to function
<table>
<thead>
<tr>
<th>Patient details</th>
<th>Age/Sex</th>
<th>Bariatric procedure</th>
<th>Complications</th>
<th>Bowel length</th>
<th>Restoration / Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC - 13/08/1974</td>
<td>41 F</td>
<td>Gastric bypass – July 11</td>
<td>• SMA Infarction – Jan 13</td>
<td>15 cms SB + Colon</td>
<td>July 13 – On HPN</td>
</tr>
<tr>
<td>CW - 01/06/1955</td>
<td>60 F</td>
<td>Lap sleeve - gastrectomy Aug 12</td>
<td>• Leak, Sepsis, MODS Burst abdomen, Vac Rx &amp; ECF</td>
<td></td>
<td>July – 13 : Lap + Adhesion lysis, ECF repair &amp; incisional hernia repair</td>
</tr>
<tr>
<td>DC - 11/02/1939</td>
<td>76 F</td>
<td>Jej-ileal bypass - 1989</td>
<td>• Weight loss / Steatorrhea</td>
<td>80 cms SB + Colon</td>
<td>Weight gain on HPN</td>
</tr>
<tr>
<td>DT - 27/10/1967</td>
<td>48 F</td>
<td>Gastric bypass – Dec 11</td>
<td>• SB Infarct (Internal hernia) – Aug 2014</td>
<td>100cms SB + 50% LB(Distal TC + RS)</td>
<td>Apr 15 – Off HPN</td>
</tr>
<tr>
<td>DC - 31/03/1958</td>
<td>57 F</td>
<td>Gastric bypass – Mar 11</td>
<td>• Colectomy + IRA, Diverticular mass &amp; CLO – Apr 12 • Ischaemic gut (AF) – Mar 14</td>
<td>Blind Gastric pouch + distal stomach + duo + 88 cms Roux loop to stoma + 220 cm SB (not in circuit) + Rectum</td>
<td>Pending ROC – Dec 15</td>
</tr>
<tr>
<td>RT - 04/06/1978</td>
<td>37 M</td>
<td>Gastric bypass - Aug 2013</td>
<td>• Ischaemic SB (Petersons hernia) – Dec 14.</td>
<td>Blind Gastric pouch + distal stomach + duo to duodenostomy, caecostomy</td>
<td>Gastro-Gastric + Duodeno- Caecal anastomosis : July 15 On HPN – Vitamins / Minerals</td>
</tr>
</tbody>
</table>
A Few More “Hows”.....

How do I optimise blood supply to the gut?

How can I optimise post operative bowel function?

How will the patient be continent with such a short GUT - do I need to make a stoma (RECTOSTOMY)?
How do I optimise blood supply to the gut?
How can I optimise post operative bowel function?

- Infusion of feed into distal limb
Reinfusion enteroclysis
Bolus enteroclysis

- Not as difficult to perform
- Can use enteral feed

- ? Just as effective at maintaining GI integrity / calibre
- ? Shorter recovery time after restorative surgery
- ? Decreases post anastomotic complication rate
Stimulation of the efferent limb before ileostomy closure: a randomized clinical trial

Abrisqueta J, Abellan I, Luján J, Hernández Q, Parrilla P

- Prospective randomized study, 77 patients having ileostomy closure
- 35 patients had 500 mL physiological saline + 30 g thickening agent for 2 weeks prior to surgery

<table>
<thead>
<tr>
<th></th>
<th>stimulated group</th>
<th>non-stimulated group</th>
<th>P</th>
</tr>
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<tbody>
<tr>
<td>Return to oral tolerance</td>
<td>1.06 days</td>
<td>2.57 days</td>
<td>= 0.007</td>
</tr>
<tr>
<td>Return to passage of flatus</td>
<td>1.14 days</td>
<td>2.85 days</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Post op ileus</td>
<td>2.85%</td>
<td>20%</td>
<td>= 0.002</td>
</tr>
</tbody>
</table>
How will the patient be continent with such a short GUT - do I need to make a stoma (RECTOSTOMY)?

Usually not

Except when there are poor anal sphincter muscles
Anthony – 28 years old

- Cocaine addict
- Ischaemic gut and stroke
- Hemiparesis
- Walked slowly with a stick
- Excellent sphincter function
- 40 cm jejunum to mid TC
- No incontinence
DOES IT WORK?
Dave – 43 year old

- History of severe anxiety / IBS
- 50 cm small bowel anastomosed to proximal TC
- 12 BA + a day
- Inability to cope
- Wanted a transplant
2 deaths -

- 68 year old man with heart failure, respiratory failure, renal failure, liver failure. Initially turned down for surgery. Unable to leave hospital due to unpredictable fluid balance - D3 stapled off, PEG in situ Died from upper GI bleed night of operation on ITU Coroner’s PM not released, no inquest

- 58 year old lady with blocked coeliac artery, SMA, IMA, previous CABG, carotid endarterectomies, poor renal blood flow. Reanastomosis / revascularisation – SIRS – died on ITU at 2 weeks, anastomosis intact at Coroner’s PM
Mesenteric Infarction: Clinical Outcomes After Restoration of Bowel Continuity.
Adaba F, Rajendran A, Patel A, Cheung YK, Grant K, Vaizey CJ, Gabe SM, Warusavitarne J, Nightingale JM.
All patients with a jejunostomy required PN

After restoration of bowel continuity to the colon

35% stopped PN by 1 year
50% stopped PN by 2 years
77% stopped PN by 5 years
Great result sister – his small bowel is now longer than his willy!