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The University Of Sheffield.

Percutaneous endoscopic colostomy
PEC

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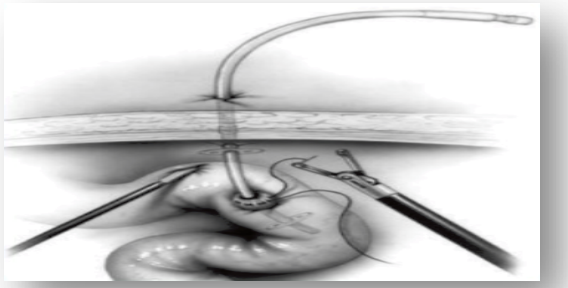

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Introduction

- Minimally invasive endoscopic procedure.
- High-risk patients with sigmoid volvulus or intestinal pseudo-obstruction.
- Acts as an irrigation or decompressing channel and provides colonic ‘fixation’ to the anterior abdominal wall.

NICE Guidelines UK 2006

"current evidence on the safety and efficacy of PEC appears to be adequate to support it in elderly and frail patients with recurrent sigmoid volvulus and colonic motility problems provided that the normal arrangements are in place for audit and clinical governance"

Interventional procedures guidance [IPG161], March 2006

Indications 1

- Surgical treatment:
  - Sigmoidopexy.
  - Sigmoidoplasty.
  - Sigmoid colectomy and primary anastomosis.

- All contraindicated for elderly and frail patients or severely immunocompromised patients.

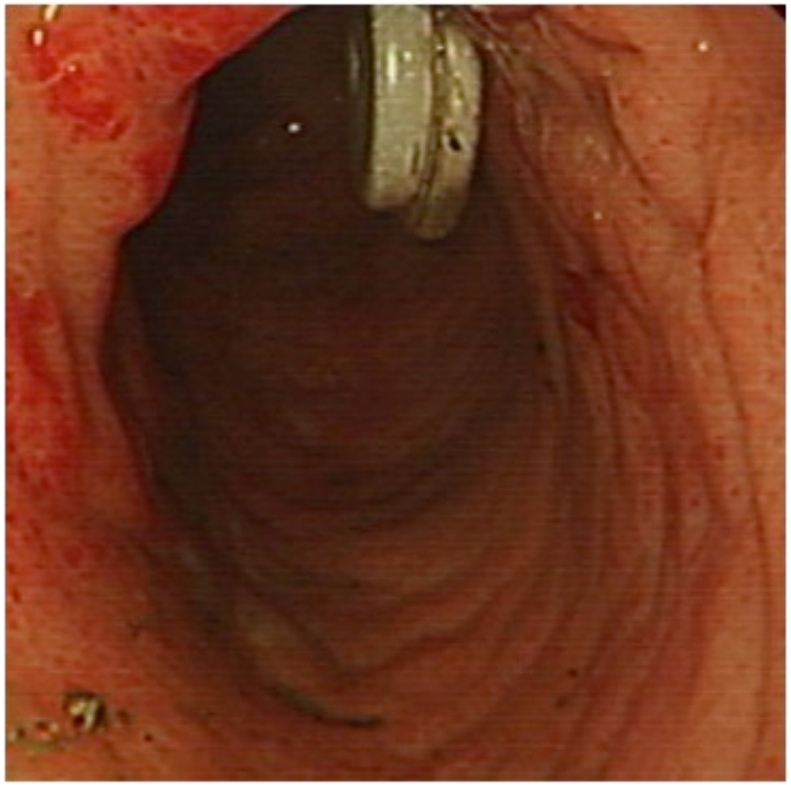
Indications 2

1. Fixation of the colon in recurrent sigmoid volvulus[1].
2. Intermittent or continuous decompression of colonic pseudo-obstruction/megacolon[2].
3. Antegrade distal colonic and rectal irrigation/enema.
4. Some cases of evacuatory disorder or constipation not responding to other treatment options.

1-Daniels IR et al. Recrrent sigmoid volvulus treated by percutaneous endoscopic colostomy. *Br J Surg 2000;**87:1419.***
2-Heriot AG et al. Percutaneous endoscopic colostomy for obstructed defaecation. *Dis Colon Rectum 2002;**45:700-702.***

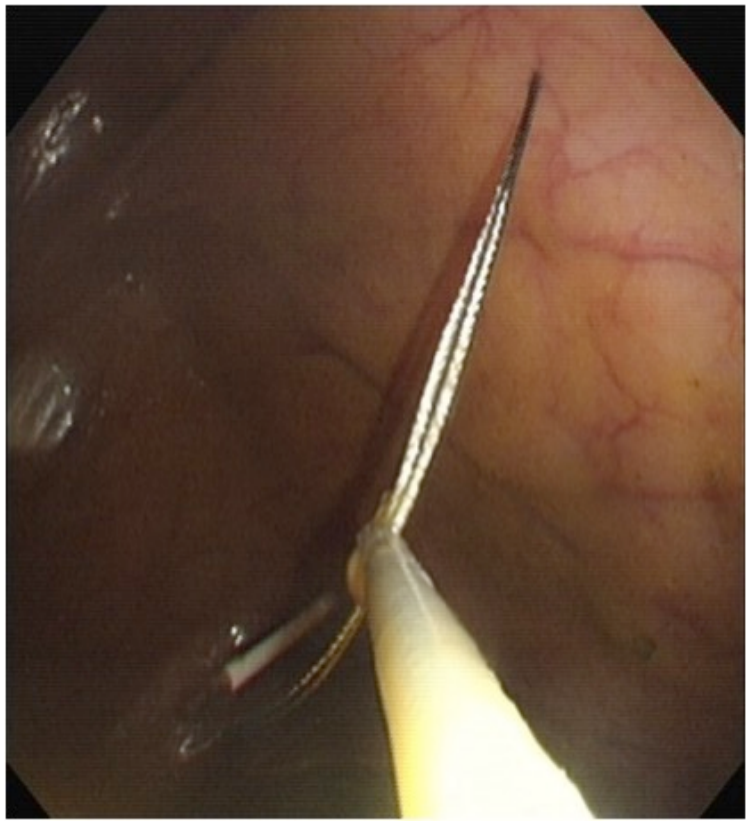
Procedure outlines 1

- PEC tubing is placed in position using a colonoscope, which is inserted into the left colon through the rectum.



Procedure outlines 2

- A wire is passed through a small skin incision and pulled back through the anal canal via the colonoscope.



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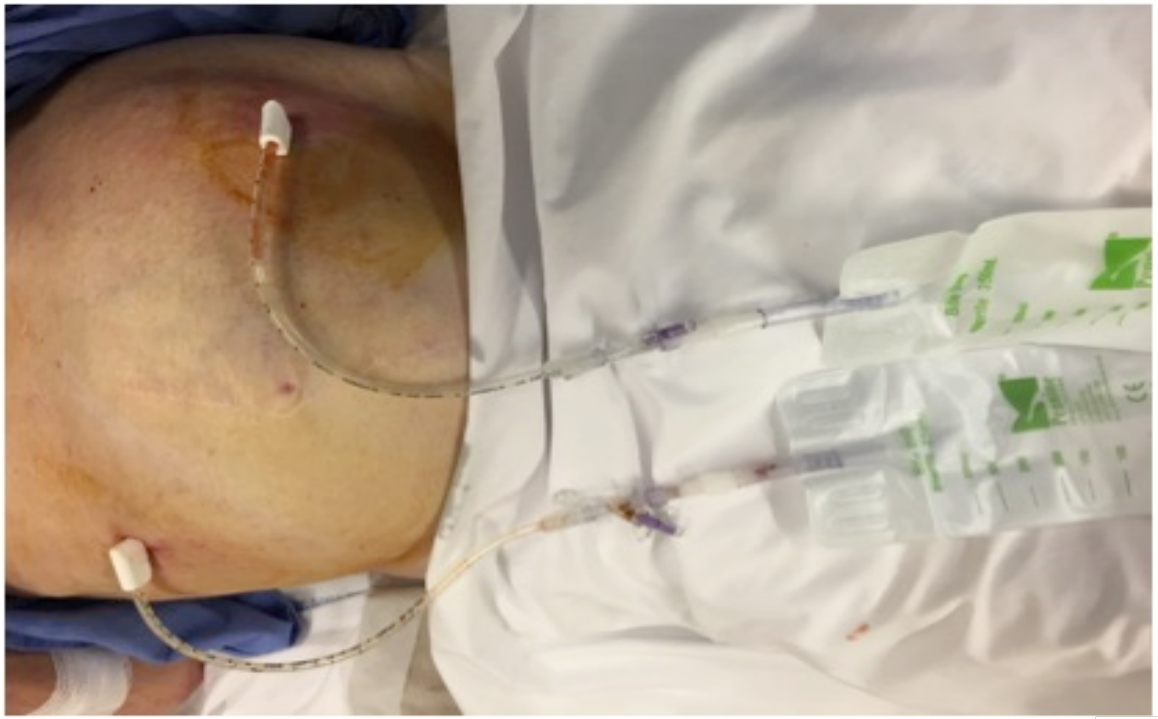
Procedure outlines 3

- The PEC tube is tied to the wire, pulled back through the bowel and abdominal wall, and secured against the abdominal wall.
- The colonoscope is re-inserted to check the final position of the PEC tube.

Procedure outlines 4

- The tube is then attached to a drainage bag, which is usually flushed twice a day.



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Check list

Indication	Ascertain indication, define outcome
	Ensure no contraindication
Consent	Patient may be unable to consent, Discuss with family/carer
	discuss with colorectal surgeon
Review images	AXR or CT abdomen
Bowel Prep	Difficult to achieve complete bowel cleansing.
	Phosphate enema
Medication	Light sedation (1-2 mg midazolam)
	Pre-procedure antibiotics (amoxicillin and clavulanic acid /metronidazole)
	Post-procedure antibiotics for 5 days
PEG kit	20-Fr tube
Select PEC position	2 positions for sigmoid volvulus
	1 position for all other indications
	Use finger indentation, transillumination
Local anesthetics	Lignocaine 1%
Check position	Re-insert the scope
Post procedure	Never clamp the tube to ensure continuous venting/decompression
	Regular Flushing to prevent blockage
	Patient/carer education
	Watch for complications

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Contra-indications

1. Failure of transillumination.
2. Anterior abdominal infection and sepsis.
3. colonic ischemia.
4. Mechanical intestinal obstruction.

Complications

- As high as 42% [1].

1. Local infection.
2. Pain at PEC site.
3. PEC leakage.
4. Granuloma formation.
5. Buried internal bolster.
6. Tube erosion.
7. Delayed complications (up to 2/12) peritonitis

1-Bertolini D et al , Severe delayed complication after percutaneous endoscopic colostomy for chronic intestinal pseudo-obstruction:
A case report and review of the literature. *World J Gastroenterol 2007;**13:2255-2257.***

Conclusion

- PEC offers an effective treatment option for patients who otherwise would require repeat hospital admissions, multiple endoscopic decompressions.