The absence of muscular hypertrophy in the dilated segment in neonates has been attributed to it being an functional adaptation to chronic obstruction and not a part of the congenital malformation.1,6

A striking feature is the abundant tortuous serosal vascular pattern on the dilated segment, which has been found in all cases. A vascular catastrophe has been suspected to lead to this malformation.7

A neurogenic factor with normal ganglion cells, strangulation of intestine at the umbilical ring, hypoplasia of intestinal muscles, impairment of intestinal organ genesis, a common pathogenetic complex with congenital diverticula and duplication, deranged chemoreceptor and abnormal muscle development, presence of heterplastic tissue in the wall of the dilated segment have all been postulated as possible causes of segmental dilatation of colon.4

Associated malformations reported are of the ventral spine, meningomyelocele, cleft palate, congenital heart disease, malformation of the lungs and esophagus, duodenal atresia, annular pancreas, Meckel’s diverticulum, bladder extrophy and genital malformations.4

The recommended treatment is resection of the dilated segment and end-to-end anastomosis with proximal colostomy to avoid a major procedure in a sick neonate.

References

Enterocutaneous fistulas are potentially life-threatening complications of gastrointestinal surgery. Nutritional support is the mainstay of management. We report a 32-year-old man who developed an enterocutaneous fistula following surgery for ulcerative colitis. Enteral feeding was attempted by introducing a Foley’s catheter through the midjejunal fistula. [Indian J Gastroenterol 2005;24:124-125]

Gastrointestinal fistulas, with their associated fluid and electrolyte loss, nutritional depletion and sepsis, present a major challenge to the treating surgeons.1,2 Since the advent of enteral as well as total parenteral nutrition (TPN), the mortality of GI fistulas has been significantly reduced.1,3,4 We report a patient with midjejunal fistula who was managed by a novel method of introduction of an enteral feeding tube directly through the fistula (fistuloclysis).

A 32-year-old man was admitted with fulminant ulcerative colitis with severe lower gastrointestinal bleeding. Colonoscopic evaluation revealed severe pancolitis and biopsy was reported as fulminant ulcerative colitis. He was given a trial of conservative management initially, with systemic hydrocortisone, oral mesalazine and antibiotics for 10 days. One course of infliximab (Remicade; Schering-Plough) was also tried. All these measures failed and the patient’s condition deteriorated. He was then taken up for emergency total colectomy and temporary ileostomy. The distal end of the rectum was brought out as a mucus fistula through the lower end of the midline wound. The postoperative period was uneventful and the patient was discharged from hospital after two weeks. A definitive reconstruction was planned after three months in the form of ileal pouch-anal anastomosis.

Two months later the patient presented with intestinal obstruction. An initial trial of conservative management failed and after 72 hours he was taken up for emergency laparotomy. During laparotomy, dense adhesions were present between the loops of jejunum and previous midline incision. One loop of jejunum was densely adherent around the ileostomy loop. While releasing this loop, a small rent was found over the adherent jejunal loop. The rent was closed in two layers.

On the seventh postoperative day, the patient developed an enterocutaneous fistula that manifested as bilious drainage from the drain tube. It was a high-output fistula draining about 2500 mL/day. The patient was taken for relaparotomy immediately. A midjejunal fistula was found and was closed in two layers. After 5 days, it leaked again, draining about 2500 mL/day. The patient was put on TPN and antibiotics; over the next three weeks, the fistula output remained high and the general condition of the patient started deteriorating.

A relaparotomy was done at this stage. All the small bowel loops were densely adherent and it was not pos-
sible to isolate the loop bearing the fistula separately to resect the fistulous site. A 22-F Foley’s catheter was passed through the fistula into the distal bowel. The position of the tube was confirmed by fluoroscopy.

Postoperatively, after 48 hours, enteral feeding was started through the tube. Initially elemental diet was started at a rate of 30 mL/hour. We were able to achieve a feeding rate of about 100 mL/hour in two weeks and then the TPN was stopped. The fistula output decreased gradually and stopped completely by 60 days. Oral feeding was also started with low-residue diet. The feeding tube was removed after three months. Nine months later, the patient is healthy and leading a normal life. The fistula has healed completely.

Nutritional support plays a key role in the management of patients with GI fistula. Prompt nutritional support increases the chance of spontaneous closure of fistula irrespective of its site.1,3,4

Enteral nutrition can be given safely in colocutaneous, low-output ileal, esophageal/gastric, duodenal and high jejunal fistulas if distal access via a feeding tube is possible. Conventionally this is done by feeding gastrostomy or jejunostomy. Fistuloclysis is a novel concept of enteral feeding by placing the feeding tube directly through the fistulous opening into the distal bowel. The role of fistuloclysis in difficult enterocutaneous fistula has been established.4

In the present case, a conventional feeding jejunostomy was not possible as a result of dense bowel adhesions and friable intestines. We attempted fistuloclysis by placing a wide-bored Foley’s catheter directly through the fistulous opening into the distal bowel. We were able to start elemental feeds within 48 hours and were able to meet the nutritional needs of the patient (about 2500 Kcal/day) within two weeks. We continued enteral feeding by this method till the patient was able to take almost 90% of his nutritional requirements orally. In this case, the technique of fistuloclysis was life-saving.

References

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