Letters

Mechanical bowel preparation in elective colo-rectal surgery: a practice to purge or promote?

Mechanical bowel preparation (MBP) in elective colo-rectal surgery is unpleasant and potentially harmful, yet it is done routinely to reduce the risk of postoperative septic complications. Two large, randomized, controlled trials concluded that elective colo-rectal surgery can be safely performed without MBP. A recent Cochrane meta-analysis revealed that MBP was associated with a significantly high rate of anastomotic dehiscence and wound complications. No study on the subject is published from India.

We conducted a prospective study to compare the incidence of postoperative septic complications and anastomotic leak in 50 patients undergoing elective colo-rectal surgery during July 2003 to December 2004. They were divided in two groups of 25 patients each. Group A received MBP with polyethylene glycol solution and Group B were not subjected to MBP. Liquid diet for 48 hours prior to surgery and luminal antibiotics (metronidazole and erythromycin) were given to all patients one day before surgery. Cefuroxime and metronidazole were administered intra-operatively and continued for minimum seven days after surgery.

Specimens from peritoneal fluid, abdominal wound fat, urine, and blood were collected for microbiological profile. The outcome measures were wound infection, intra-abdominal abscess and anastomotic leak. Wound infection was determined by the ASEPSIS score: score >20 was taken as wound infection.

There was no difference in the mean age, body mass index, diagnosis, stage of tumor, and co-morbidities in the two groups. Details of the surgery and the status of colonic preparation are shown in the Table. Liquid fecal contents were observed more frequently in Group A (36%) than in Group B patients (24%). Organisms were isolated more frequently from peritoneal fluid and incision wound fat in Group A patients (14/25) than in Group B (8/25). *E. coli* was the commonest organism (9/14 in Group A and 5/8 in Group B).

Postoperative cultures from the drains, inflamed/infected wound, urine and blood grew organisms in seven patients of Group A and eight of Group B; all of them grew *E. coli*. Two patients in Group A also grew *Staph. aureus* while two patients in Group B grew *E. faecalis* from the abdominal wound.

The incidence of wound infection was 32% and 36%, respectively, in Groups A and B patients. Five patients from each group grew *E. coli* from the abdominal wounds. Intra-abdominal abscesses were diagnosed in two Group A patients, while anastomotic leak was seen in 2 and 1 patient, respectively, in Groups A and B.

In our study, liquid fecal matter was observed in the colon more frequently in MBP-treated patients. Similarly intraperitoneal contamination was also observed more frequently in these patients. This suggests that despite conventional precautions to avoid fecal spillage, unnoticed fecal soiling of the peritoneal cavity was taking place during bowel handling and anastomosis.

Wille et al did a meta-analysis of 9 randomized controlled trials and concluded that anastomotic leak occurred in 6.2% in the MBP group as compared to 3.2% in the unprepared patient; wound infection occurred in 7.4% in the former and 5.4% in the latter group. Other studies have reported similar findings.

### Table: Surgical procedures and assessment of bowel preparation

<table>
<thead>
<tr>
<th>MBP (Group A)</th>
<th>No MBP (Group B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery</td>
<td></td>
</tr>
<tr>
<td>Anterior resection</td>
<td>2</td>
</tr>
<tr>
<td>Low anterior resection</td>
<td>1</td>
</tr>
<tr>
<td>Abdomino-perineal resection</td>
<td>10</td>
</tr>
<tr>
<td>Right hemicolectomy</td>
<td>7</td>
</tr>
<tr>
<td>Left hemicolectomy</td>
<td>3</td>
</tr>
<tr>
<td>Total colectomy</td>
<td>1</td>
</tr>
<tr>
<td>Subtotal colectomy</td>
<td>1</td>
</tr>
<tr>
<td>Ileo cecal resection</td>
<td>0</td>
</tr>
<tr>
<td>Assessment of bowel preparation</td>
<td></td>
</tr>
<tr>
<td>Clean bowel</td>
<td>13</td>
</tr>
<tr>
<td>Liquid content</td>
<td>9</td>
</tr>
<tr>
<td>Semi-solid content</td>
<td>3</td>
</tr>
<tr>
<td>Solid content</td>
<td>0</td>
</tr>
<tr>
<td>Type of anastomosis</td>
<td></td>
</tr>
<tr>
<td>Ileo-colec</td>
<td>8 (53%)</td>
</tr>
<tr>
<td>Colo-colec</td>
<td>3 (20%)</td>
</tr>
<tr>
<td>Colo-rectal</td>
<td>3 (20%)</td>
</tr>
<tr>
<td>Ileo-rectal</td>
<td>1 (6.6%)</td>
</tr>
<tr>
<td>Anastomotic technique</td>
<td></td>
</tr>
<tr>
<td>Manual double layer</td>
<td>7</td>
</tr>
<tr>
<td>Single layer</td>
<td>6</td>
</tr>
<tr>
<td>Stapler</td>
<td>2</td>
</tr>
<tr>
<td>Spillage of bowel contents</td>
<td>2</td>
</tr>
<tr>
<td>Mean hospital stay (days)</td>
<td>12.68 (7.28)</td>
</tr>
</tbody>
</table>

MBP = mechanical bowel preparation. p=ns for all
The overall high wound infection rate in our study was because we applied stringent criteria of assessment. Slight erythema or serous discharge from even 10% of the wound was considered as sepsis. If we exclude culture-negative patients, the overall wound infection rate was 20%, similar to the 24% reported by Santos et al.8

We recommend that MBP be avoided in patients undergoing elective colo-rectal surgery.

G R Verma, Shishir Pareek, Rajinder Singh
Department of Surgery, Post Graduate Institute of Medical Education and Research, Chandigarh 160 012

References

What is the true prevalence of glucagonoma?

Neuroendocrine tumors constitute approximately 2% of all malignant neoplasms of the gastrointestinal system and 1%-2% of all pancreatic tumors.1 From January 1996 to December 2005, in a population registry of approximately 1,000,000 inhabitants, we encountered 5 cases of glucagonoma with clear clinical symptoms; in 9 others operated on for a pancreatic mass, immuno-staining for glucagon was positive. This suggests an incidence of 0.25/100,000 population/year for clinically evident glucagonoma and 0.45/100,000 population/year of non-functioning glucagons receptor-positive pancreatic neoplasms.

Glucagonoma is an extremely rare tumor. A Data Registry in Belfast1 reported incidences of 0.9 and 0.4 cases per million individuals per year for insulinomas and gastrinomas; glucagonoma reporting was anecdotal. In another study on 580 patients affected with MEN 1, glucagonoma was found in 3.2

Slightly more than 300 cases of glucagonoma have been reported so far in literature. The incidence has been reported to be 1/20,000,000 population/year, but greater awareness has led to a reported increase in prevalence than previously estimated.3

Miguel Echenique-Elizondo
Basque Country University School of Medicine, Department of Surgery, P. Dr. Begriristain 105, 20014 San Sebastian, Spain

References

Correspondence to: Dr Echenique-Elizondo. Fax +34 943017330. E-mail: gepecelm@sc.ehu.es

Anterior route reconstruction after transhiatal esophagectomy is comparable with posterior route reconstruction

Transhiatal esophagectomy (THE) is one of the most commonly performed surgeries for resection of esophagus.1,2,3 Stomach is the most commonly used conduit after resection of esophagus.4,7 Anterior and posterior mediastinal routes are the most commonly used routes. Posterior mediastinal route reconstruction has significant lower morbidity
and mortality.\textsuperscript{4} It has been suggested that extra-anatomical retrosternal route reconstruction increases perioperative complications and worsens long-term functional results.\textsuperscript{6,7,8} A prospective randomized trial was performed to compare anterior retrosternal and posterior mediastinal route gastric tube reconstruction after THE.

After institutional ethics committee approval and written informed consent, 23 patients underwent THE between October 2003 and December 2004. All patients who underwent THE followed by reconstruction of neo-esophagus by the gastric tube were eligible for inclusion. The exclusion criteria were: advanced tumor stage (T4), evidence of non-regional lymph node involvement, distant metastasis, pre-operative radiotherapy, and patient considered not fit for general anesthesia. Transhiatal esophageal resection was performed as described by Orringer.\textsuperscript{2} The stomach tube was placed in the predestinated route (anterior retrosternal or posterior mediastinal), and through the left cervical approach esophago-gastric anastomosis was done. All intra-operative data and postoperative complications and mortality were recorded.

The Mann-Whitney U test was used to determine differences between groups. Difference was considered statistically significant when p value was less than 0.05.

Of the 23 patients who underwent THE, 10 were randomized to anterior retrosternal route and 13 to posterior mediastinal route reconstruction (Table). The randomization was done by the closed envelope technique into two groups. The median duration of operation was longer for the anterior retrosternal group (<0.004); the median blood loss was, however, lower in this group (p=ns). Blood loss was measured by sponge count and blood that was present in the suction tube and bottle in the operating table. There was no difference between the two groups in terms of intra-operative complications. There was no in-hospital mortality.

The best route for placing the neo-esophagus after esophagectomy is debatable.\textsuperscript{4,8} Posterior mediastinal reconstruction has been advocated only after R0 resection.\textsuperscript{8} In presence of advanced disease or if R0 resection is not possible anterior mediastinal route reconstruction should be considered to avoid obstruction by tumor recurrence and to allow postoperative irradiation of the esophageal bed.\textsuperscript{4,8} There is a suggestion that gastrointestinal continuity by a gastric tube in the mediastinum causes mechanical compression of the adjacent lung, leading to cardio-pulmonary compromise.\textsuperscript{9} Bartele et al,\textsuperscript{4} showed that there are significantly less cardio-respiratory complications in the posterior mediastinal group. Intensive care unit stay and in-hospital mortality was also less in this route. Gawad et al\textsuperscript{8} also showed higher postoperative morbidity and mortality in the anterior mediastinal group. Retention of liquids and solids was also high when neo-esophagus is placed in the anterior mediastinum.

Neo-esophagus placed in the posterior mediastinum is at risk of development of infiltration or obstruction by tumor recurrence. Lanschot et al\textsuperscript{9} showed 35% loco-regional recurrence in the posterior mediastinum after esophagectomy, leading to dysphagia. Neo-esophagus placed in the anterior retrosternal route has the advantage of avoiding exposure to radiation if radiotherapy is given in the postoperative period.

In our study, 5 patients (22%) developed anastomotic leak, which is higher than in most other studies.\textsuperscript{1,2,4,5,6} The marginally higher rate in the anterior mediastinal route (3 of 10 vs. 2 of 13) may be due to more dissection needed for anterior reconstruction and more tension on the esophago-gastric suture line due to longer route.

### Table: Overall data showing all the variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Anterior group</th>
<th>Posterior group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>Age (years)</td>
<td>50 (27 - 67)</td>
<td>48 (31-65)</td>
</tr>
<tr>
<td>Male</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Malignant</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Histology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squamous cell cancer</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Adeno carcinoma</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower third</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Middle third</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Both</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Blood loss (mL)</td>
<td>320 (150 - 860)</td>
<td>370 (120 - 1120)</td>
</tr>
<tr>
<td>Operating time (hours)</td>
<td>4.2 (2.3 - 5.3)</td>
<td>3.1 (2.2 - 4.0)*</td>
</tr>
<tr>
<td>Major vascular injury (n)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Tracheobronchial injury (n)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Recurrent laryngeal nerve injury (n)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pulmonary complication (n)</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Cardiac complication (n)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Anastomotic leak (n)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Postoperative hospital stay (days)</td>
<td>14 (9 - 27)</td>
<td>12 (7 - 24)</td>
</tr>
<tr>
<td>Hospital mortality</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Values are as median (range). *p=0.004
Ngan et al\textsuperscript{10} showed that anterior mediastinal route is 1.9 cm longer than posterior mediastinal route.

The longer operative time in the anterior mediastinal route may also be due to the extra time needed for dissection.

In conclusion, the present study suggests that anterior mediastinal route reconstruction is safe and comparable to posterior mediastinum route reconstruction after transhiatal esophagectomy; however, it requires longer operating time.

Navneet Singla, Lileswar Kaman, Rajinder Singh
Department of General Surgery, Post Graduate Institute of Medical Education and Research, Chandigarh 160 012

References


\textbf{Combined garlic-omeprazole versus standard quadruple therapy for eradication of Helicobacter pylori infection}

Several studies suggest that garlic, with well-established antibacterial effects, might provide a suitable basis for a new line of anti-\textit{Helicobacter pylori} medication.\textsuperscript{1,2,3} Because of the volatility of garlic thiosulfimates, crushing or changing the garlic cloves may vaporize these compounds and render the medication ineffective.\textsuperscript{1,2,3}

We compared fresh garlic plus omeprazole with quadruple therapy in the eradication of \textit{H. pylori} infection.

This study was designed and funded by the Arak University of Medical Sciences and approved by the university ethical committee. Written consent was obtained from all patients.

Seventy-five patients with chronic non-ulcer dyspepsia (mean age 37.5 [SD 9.8] yrs; 56% female) who were positive for both urea breath test (UBT) and \textit{H. pylori} serology (Elisa; Radim SPA; Roma Italy), were enrolled as cases; 77 patients with duodenal ulcer on endoscopy (mean age 37.4 [13] yrs; 50.6% females) and positive for UBT and serology were chosen as the control group.

No patient had received antibiotic or proton-pump inhibitor in the previous 6 months. Exclusion criteria also included gastric ulcer, gastric cancer, NSAID consumption, substance abuse, major comorbidity, pregnancy and breast feeding, and intolerance to therapeutic regimen. UBT was performed using C14 labeled urea with \textit{Heliprobe} machine (SECY-97-09; Noster System AB, Stockholm, Sweden).\textsuperscript{4}

The therapeutic regimen in the case group consisted of 15 grams of cleaned row garlic (\textit{Allium sativum}), which is routinely cultivated in Hamedan, Iran, in three divided doses with food, plus omeprazole 20 mg BID, for 2 weeks. Patients in the control group received quadruple therapy (omeprazole 20 mg BID, amoxicillin 1 gram BID, bismuth subcitrate 2 tablet TID, metronidazole 500 mg BID) for 2 weeks. UBT was done before treatment and one month after the end of treatment in both groups.

The response rate (negative UBT) 1 mo after treatment was 12% among the cases and 90.9% in control group (p<0.001). The relative risk of case
response rate was 0.014 (95% CI 0.005 - 0.039).

Our analysis showed that garlic plus omeprazole does not have significant effect on *H. pylori* eradication.

Salih *et al*, in a case-control study, reported that garlic-consuming subjects had significantly lower mean antibody titer to *H. pylori* than non garlic consumers. In a case-control study from China, adults from a low-risk area for gastric cancer (Cangshan) were compared to an age-and sex-matched group from a high-risk area (Linqu); chronic gastritis, gastric dysplasia and rate of *H. pylori* infection was lower in Cangshan and inversely related to garlic consumption. The study, however did not match for other eating habits, lifestyle or environmental risk factors.

Bianchini *et al* in a meta-analysis of 30 studies concluded that allium vegetables, mainly garlic organic sulfur components, have strong preventive effect on stomach and colonic cancer but currently available data are not strongly conclusive for *H. pylori* eradication. Most *in vivo* studies performed so far have used garlic preparations in small quantities without control groups, and are of short duration. They do not compare garlic-containing regimens with conventional antibiotic-based regimens. We used a large sample size and strict inclusion and exclusion criteria. We selected duodenal ulcer patients for conventional antibiotic therapy because we could not ethically deprive them of such therapy.

We selected non-ulcer dyspepsia patients for garlic-omeprazole therapy since conventional antibiotic regimen is not mandated in them even if UBT is positive.

The limitation of our study was that we could not blind the patients because of the nature of the drug, but the gastroenterologist who performed UBT and the analyst were unaware of the treatment assigned.

To summarize, our study does not support the idea of *in vivo* effect of garlic on *H. pylori eradication*. Further studies investigating the value of garlic replacing one of the antibiotics of standard regimen or as an adjuvant are worthwhile.

A Fani, I Fani, M Delavvar, P Fani, B Eshrati, Mina Elahi**
Arak University of Medical Sciences, *Isfahan University of Medical Sciences, and **Ramin University, Iran

References


Correspondence to: Dr Ali Fani, Valiasr Hospital, Department of Internal Medicine, Valiasr Sq, Arak, Iran. E-mail: dr@iman-fani.com

FDG-avid thyroid incidentaloma in advanced gastrointestinal stromal tumor: metachronous dual primaries

We report a metachronous association of gastrointestinal stromal tumor (GIST) and follicular carcinoma of the thyroid.

A 60-year-old lady, diagnosed to have intermediate-to high-grade ileal GIST and treated with resection-anastomosis for the mass 3 years back, presented with multiple abdominal masses. CT scan revealed two large heterogeneously enhancing solid masses in the pelvis. Contiguous small cystic lesions were also observed. The liver showed a large cystic lesion occupying most of the right lobe, measuring 12 cm x 12.5 cm, with thick, moderately enhancing walls. Another
hypodense poorly enhancing mass measuring 8.5 cm x 3 cm was noted in segment VIB; all these were inferred to be metastatic deposits. She was planned for oral imatinib mesylate therapy in view of advanced disease and was referred for a baseline whole body FDG-PET scan. The scan demonstrated avid FDG uptake in the CT-detected metastatic abdominal masses; in addition, it revealed a focus of intense FDG uptake in the region of the left thyroid lobe. On clinical examination she was found to have a firm to hard left-sided solitary thyroid nodule. FNAC was suggestive of follicular neoplasm with Hurthle cell change. Excision biopsy proved this to be follicular carcinoma of thyroid.

Several tumors have been reported to be synchronously or metachronously associated with GIST. To the best of our knowledge, this is the first report of a thyroid primary associated with GIST.

Sandip Basu, Narendra Nair, K M Mohandas*
Radiation Medicine Center, Bhabha Atomic Research Center, and *Department of Gastroenterology, Tata Memorial Hospital Annexe, Mumbai 400 012

References

Correspondence to: Dr Basu. E-mail: drsanb@yahoo.com

Hemorrhoids banding with bands prepared from Foley’s catheter

Rubber band ligation remains one of the main modalities in the treatment of second and third degree hemorrhoids. These bands often break when applied on the applicator forceps probably because their elasticity is not satisfactory; subsequent breakdown of bands can also result in poor grip of hemorrhoids.

We prepared bands by cross-sectional cutting of 14-Fr Foley’s catheter into multiple segments. Two bands were applied on the applicator each time. These bands never broke down during sliding over the applicator. Fair elasticity led to satisfactory grip over the hemorrhoids after banding. None of twenty patients reported pain, bleeding, discomfort or recurrence during mean follow-up of 9 months (range 1 - 15). Cost of ten rubber bands is around 3 $ while cost of one Foley’s catheter is 2 $ and from which about 200 bands can be made.

Satyendra K Tiwary, Rahul Khanna, A K Khanna
Department of General Surgery, Institute of Medical Sciences, Banaras Hindu University, Varanasi 221 005

Correspondence to: Prof A K Khanna, Fax: (0542) 236 7568, E-mail: akk_dr@sify.com

Polymyositis during pegylated α - interferon ribavirin therapy for chronic hepatitis

Myalgia is a common side effect during treatment with interferon. This is generally mild and does not induce muscle weakness or rise in creatine kinase levels.

A 50-year-old Pakistani lady was diagnosed to have chronic hepatitis C, based on elevated transaminase levels and positive screening test for HCV antibodies by ELISA. HCV RNA was positive (RT-PCR, COBAS Amplicor HCV Monitor 2.0; Roche Molecular System, USA) with viremia greater than 700,000 IU/L. The HCV genotype was 1b. Liver biopsy confirmed grade 3 chronic hepatitis. Her thyroid function profile was normal on replacement thyroxine for hypothyroidism.

Two months after the initiation of treatment with pegylated interferon 180 mcg weekly (Pegasys; Roche) and ribavirin 1000 mg daily (Copegus; Roche) she complained of myalgia, followed by progressive crippling weakness of the extremities, with inability to stand or walk on her own. Muscle power ranged from grade 2-3 in all proximal muscle groups and neck flexors. Investigations revealed elevated creatine kinase (>3000 IU/L; normal 2-160) and LDH (>1000 IU/L; normal 240-480), which suggested the possibility of polymyositis.

Electromyography showed myopathic changes. Bi-
opsy of the quadriceps muscle showed inflammatory infiltrates of mononuclear cells, mainly lymphocytes and plasma cells, between muscle fibers, consistent with inflammatory myopathy. MRI of thighs was suggestive of diffuse myopathy. Tests for antinuclear antibody, anti-Sm, anti-Sm-RNP, anti-Jo, anti-Ro and anti-La were negative. As the patient continued to have significant weakness two weeks after discontinuation of interferon and ribavirin treatment, she was started on corticosteroids (prednisolone 1 mg/Kg). She responded within 2 weeks, showing marked clinical improvement and a drop in creatine kinase levels. She is now being tapered off corticosteroids and is maintaining her clinical response.

Cirigliano et al\(^2\) reported polymyositis following interferon treatment for malignant melanoma. High levels of natural interferon alfa are present in the blood of patients with autoimmune disease and correlate with disease activity.\(^3\) The mechanism by which interferon triggers autoimmunity is probably related to the up-regulation of gene transcription of MHC class 1 antigen, through which antigens are presented to the immune system.\(^4\)

Polymyositis as a potential side effect of interferon treatment should be recognized promptly as it warrants the rapid discontinuation of interferon and possible initiation of corticosteroids. The role of serial monitoring of creatine kinase levels for the early detection of subclinical myopathy during interferon treatment needs to be evaluated in clinical trials.

Anil John, Samar El Emadi,* Saad Al Kaabi, Nader Morad,** Moutaz Derbala, Rafie Yakoub, Nazeeh Dweik, Mohammed Tariq Butt
Departments of Gastroenterology, *Rheumatology and **Histopathology, Hamad Medical Corporation, Doha, Qatar

References
1. Duseiko G. Side effects of alpha interferon in chronic hepatitis C. *Hepatology* 1997;26(3 suppl 1):112S-121S.

*Correspondence to: Dr Anil John, PostBox 3050, Doha, Qatar. E-mail: aniljohnin@yahoo.com*

---

**How to intubate ileum easier**

Intubation of the terminal ileum (TI) during colonoscopy is a technically demanding skill; four techniques have been described.\(^1\) In one method, the ileocecal valve is identified and positioned inferiorly (6 o’clock position) by manipulating the colonoscope. The tip of the instrument is then advanced above and beyond the valve and slowly withdrawn with the tip flexed downward until the orifice is exposed; after that, the colonoscope is advanced forward to intubate the ileum.\(^2\) Other authors have suggested a similar technique with the valve positioned at the 12 o’clock position.\(^3\)

Our technique for ileal intubation in the left lateral position has the following steps:

When reaching the cecum, shorten the colonoscope maximally, turn up the scope for about 80-90 degrees and pull back on the direction where the buttock sign is seen, usually located at hours 7-11; it may be necessary to rotate the scope minimally to the right and left, looking for the ileocecal valve. When the tip of the scope touches the valve, insufflate it with air to open the valve. Push the scope minimally into the valve with continuing air insufflation. Turn down the scope to fully enter the ileum and continue insufflating air and pushing forward.

Ask your nursing assistant to push on the right lower quadrant of the abdomen. Prone position may be used for those in whom this technique is not successful in the left lateral position.

Although there is some similarity with the method described by Cotton,\(^4\) we found this modified technique much easier for ileal intubation especially in left lateral position.

Mohamad Hassan Emami, Iman Saramipoor Behbahan
Isfahan University of Medical Sciences, Poursina Hakim Research Institute, Mail Box: 81465-1798, Isfahan, Iran

References
Association of Ehlers-Danlos syndrome and solitary rectal ulcer syndrome

A 21-year-old man had recurrent episodes of hematemesis and melena since the age of 12 years. Upper GI endoscopy at another center revealed multiple gastric vascular malformations, which were treated with repeated sessions of argon-plasma coagulation. As bleeding persisted, he underwent partial gastrectomy and, six months later, total gasterectomy and Roux-en-Y esophago-jejunostomy. Later, he developed bleeding per rectum and reported to our institution. He gave history of easy skin bruising, however denied having abdominal pain, constipation or digital evacuation of stools. He was thin built, poorly nourished and had severe anemia. While the skin was thin with normal extensibility, joints were hyper-mobile. No other skeletal deformities were seen. There was no mucocutaneous telangiectasia. Examination of eyes was normal. Abdominal examination revealed healed scars of previous surgeries. Per-rectal examination revealed fresh blood.

Investigations showed anemia and normal coagulation parameters. Upper GI endoscopy showed normal esophagus, duodenum and proximal jejunum. Enteroclysis was normal. Colonoscopy and retrograde ileoscopy showed two ulcers (2 cm X 1.5 cm) with adherent clots on the anterior rectal wall. Biopsy from the ulcer margin revealed thickening and splaying of muscularis mucosae, which reached up to the surface of the mucosa. These histological features were suggestive of solitary rectal ulcer syndrome (SRUS). Fragmentation of elastic fibers (Fig) and myxoid degeneration in the dermis on skin biopsy suggested a diagnosis of Ehlers-Danlos syndrome (EDS). Repeated sessions of argon-plasma coagulation were applied over the lesions to control bleeding in addition to mesalamine and sucralfate enemas. The bleeding however persisted and he was subjected to low anterior rectal resection with proximal ileostomy. The resected rectal specimen revealed three large ulcers in the rectum at 3, 7 and 10 cm from the anal verge; histology was suggestive of SRUS. Postoperatively he had recurrent episodes of intestinal obstruction due to postoperative adhesions, which ultimately led to septicaemia and death.

EDS is characterized by hyper-extensibility and fragility of the skin, hyper-mobility of the joints, and generalized fragility of connective tissue involving hollow viscus and blood vessels.1,2 Failure of cross-linking of collagen fibers leads to thin, irregular and fragmented collagen fibrils. Our patient can be classified into the category of arterial form of EDS type IV. In EDS type IV, the mutations in COL3A1 gene, which encodes the α-1chain of type III collagen, lead to defect in synthesis of type III collagen. Blood vessels, intestine and uterus have abundance of type III collagen and hence are often involved.1,3 EDS type IV is associated with life-threatening complications such as GI bleeding, aortic dissection and hollow viscous perforations.

Lower GI bleed due to colonic diverticula and spontaneous rupture of sigmoid colon have been reported in patients with EDS.4 An association between EDS and SRUS has not been described earlier. Defect in the synthesis of type III collagen might have played a role in development of SRUS in this individual.

Chalamalasetty Sreenivasa Baba, Praveen Kumar Sharma, Vaishali Deo,* Sujoy Pal,** G Sethuraman,*** Siddhartha Datta Gupta,* Govind K Makharia

Departments of Gastroenterology and Human Nutrition, *Pathology, **Gastrointestinal Surgery, and ***Dermatology, All India Institute of Medical Sciences, New Delhi 110 029

References

Correspondence to: Dr Makharia, Associate Professor. Fax: 91 (11) 2658 8641, 2658 8663. E-mail: govindmakharia@gmail.com

Splenic rupture as complication of colonoscopy

With reference to the report by Alizadeh et al., I would like to highlight that there is certainly an increase in the number of cases of splenic rupture after colonoscopy, either due to increased use of colonoscopy (for colonic cancer surveillance, for example) or due to increased reporting of such cases. The number of cases reported in English literature have risen to 44 from 28 a year earlier.

CT scan or ultrasonography should be used to diagnose the cause of hypotension prior to surgical intervention especially in an unfit patient. Such patients have been reported to be managed by splenic artery embolization.

Parin Shah
Department of Surgery, Prince Charles Hospital, Merthyr Tydfil, Wales, CF47 9DT

References

No reply received from Authors

Coexistence of chronic calcific pancreatitis and celiac disease

Dr Sood et al described the coexistence of chronic calcific pancreatitis with celiac disease. Although this is rare, we as well as other authors have earlier reported such a coexistence. It is important to remember this existence as patients with celiac disease who fail to respond to a gluten-free diet may have coexistent pancreatic pathology; also patients with chronic pancreatitis who continue to have diarrhea despite therapy may have an underlying celiac disease. Sood et al state that the diagnosis of celiac disease followed that of chronic pancreatitis. Since celiac disease has varying phenotypic presentations that frequently results in delayed diagnosis, it is possible that in the present case also the celiac disease coexisted with chronic pancreatitis but was diagnosed later. It would be interesting to know whether any endoscopic markers of celiac disease were observed in the duodenum at the time of endoscopic retrograde cholangiopancreatography.

Surinder Singh Rana, Deepak Kumar Bhasin, Saroj Kant Sinha, Kartar Singh
Department of Gastroenterology, Post Graduate Institute of Medical Education and Research, Sector 12, Chandigarh 160 012

References

Reply from the authors

We agree that coexistence of diseases should be considered when the response to treatment for the first diagnosed disease is suboptimal. However, no scalloping of duodenal folds was reported by the endoscopist during ERCP, done in another hospital.

Ajit Sood