or gastrostomy give acceptable results. It is too early to accept cholecystododenopanostomy for closure of duodenal fistula. A prospective randomized trial of sufficient number of patients undergoing this surgery may give the answer.

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References

Reply from the authors
We thank Drs Verma and Bose for their valuable comments on our article. It is standard practice that conservative treatment be given a fair chance in the management of these patients, but it is difficult to maintain nutrition and prevent infection over a long period.

We apologize for the obvious error in the number of deaths we stated. The total number is indeed four; we had wished to emphasize that three of these occurred despite successful treatment of the leak.

Finally, we found it interesting that Drs Verma and Bose have treated 78 such cases over a period of only 4 years, a workload much beyond ours in a tertiary referral center and large public hospital. It will be interesting to evaluate the cause of such re-leaks in their center. Their experience with the standard technique is different from ours. We would like to congratulate them on their excellent results.

Omprakash Rohindia

Ascaris lumbricoides leading to esophageal bleeding

Ascaris lumbricoides, an inhabitant of the small bowel, has occasionally been noted to explore adjoining orifices, ducts and cavities, and migrate into unnatural sites. We report a patient with chronic liver disease in whom variceal bleeding was probably induced by a live roundworm.

A 30-year-old man presented with massive hematemesis and melena of one day's duration. He neither had abdominal pain nor ingested non-steroidal anti-inflammatory drugs (NSAID). There was no history of jaundice, encephalopathy, pedal swelling or prolonged fever. He was a chronic alcoholic. He had tachycardia and was hypotensive. There was palmar but no icterus. He had peripheral stigmata of chronic liver disease in the form of spider nevi and parotidomegaly. Abdominal examination revealed firm hepatomegaly, splenomegaly and free fluid.

Investigations: hemoglobin 7.0 g/dL, liver function tests showed normal serum bilirubin, elevated (2-3 times) liver transaminases, normal alkaline phosphatase and low serum albumin. Serum-ascitic albumin gradient was 1.4 g/dL and there was no evidence of spontaneous bacterial peritonitis. Upper gastrointestinal endoscopy revealed grade III and grade IV long-column esophageal varices. There was a fresh ulcer over one of the varices, but there was no active bleeding. In addition there was a bulbous varix in the gastric fundus. A single live worm was seen in the body of the stomach; it was moving actively. The worm was removed endoscopically with the help of a snare, and was identified as Ascaris lumbricoides. When it was dissected on a blotting paper, blood-tined asc Clemson was seen and the blotting paper stained pinkish red. Endoscopic variceal sclerotherapy was done using 1.5% ethoxysclerol. Albendazole 400 mg was given to eradicate any other worm.

Circumstantial evidences in this case suggest that the ulcer over the varix was created probably by the roundworm, which in turn precipitated bleeding. We could not find another report of esophageal variceal bleeding induced by parasitic infestation in veterinary medicine. Esophageal ulcerations have been reported to be caused by Ascaris suum. Ascaris lumbricoides has been reported to cause intestinal ulcerations, perforation and obstruction. It causes upper gastrointestinal bleeding by various mechanisms, including gastric erosions, hemobilia, and precipitation of bleeding from a pre-existing duodenal ulcer. Gastro-esophageal ascariasis is an unusual occurrence.3,4

It is well known that ascaris does not ingest blood. However, we found that the ascenon of the index worm was blood-tined. Ascaris lumbricoides infestation should be considered as a cause or precipitant factor for gastrointestinal bleeding in a tropical country.

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References