**Free tubercular perforation of the ileum**

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**INTRODUCTION**

Perforation of a hollow viscus leading to peritonitis is a common surgical emergency. Although peptic ulcer perforations account for the majority of cases of peritonitis, small bowel perforations are also commonly encountered. Usually, these small bowel perforations are secondary to enteric fever or trauma, but at times, non-specific ileal perforations are also seen. Tuberculosis remains an uncommon cause of perforation of the small bowel, even in areas where tuberculosis is rampant. We report a case of a free tubercular perforation of the ileum that presented with peritonitis and was managed at our hospital.

**CASE REPORT**

A 30-year-old man presented with fever for seven days and generalized abdominal pain for one day. On examination, he was febrile, and had signs of peritonitis. X-ray examination of the chest showed free air under both the domes of the diaphragm. He was taken up for exploratory laparotomy after adequate resuscitation.

Laparotomy was performed by a midline incision and revealed purulent peritoneal fluid, mainly in the pelvis. The terminal ileum had a small perforation along the antimesenteric border, about one foot proximal to the ileocaecal junction. There were no other significant findings on laparotomy. After thorough peritoneal lavage, the ileal perforation was freshened along the margins and closed primarily using interrupted sutures. The edges of the perforation were sent for histopathological examination.

The post-operative period was uneventful. The histopathological report of the perforation margins that were sent intra-operatively revealed caseating epithelioid cell granulomas with Langhans’ giant cells and a dense mixed inflammatory cell infiltrate within the mucosa and submucosa (Figure 1). On receiving this report, the patient was started on anti-tubercular therapy and remained well on follow up. Efforts were made to detect a primary focus of tuberculosis, but were unsuccessful.

**DISCUSSION**

Primary intestinal tuberculosis (without pulmonary involvement) is one of the commonest forms of extrapulmonary tuberculosis. The infection is usually caused by ingestion of unpasteurized or contaminated milk that leads to a primary infection of the intestine in the absence of pulmonary disease.11

Intestinal tuberculosis commonly affects the ileocaecal region because of the following reasons: 1) the terminal ileum is an area of physiological stasis; 2) it has abundant lymphoid tissue; and 3) it has a high...
The treatment of tubercular peritonitis is similar to that for peritonitis due to other causes like resuscitation, nasogastric aspiration, intravenous fluids, antibiotics, and surgery once the patient is stabilized. Tubercular perforation is rarely diagnosed pre-operatively as the signs and symptoms are similar to those of peritonitis and there are no pathognomonic features either on investigation or on clinical examination. Even in patients who are known to be sufferers of the disease, the diagnosis of perforated tubercular ulcers cannot be made with certainty.

As this condition is uncommon, it is important to send the margins of any perforation routinely for histopathological analysis, especially in areas where tuberculosis is endemic. We realized that a potentially treatable disease like tuberculosis can be missed by omitting a biopsy, since we consider such perforation is secondary to enteric fever even in our institution. If tuberculosis is suspected intra-operatively, any other suspicious tissues (e.g. lymph nodes, fluid) should also be analyzed, as the combination of histology and culture helps to establish the diagnosis in nearly 80% of the cases. Another important point to keep in mind is the association of tuberculosis with HIV infection, and such patients must always be screened for HIV if the diagnosis of tuberculosis is made.

The treatment of the perforation depends upon the condition of the patient and the bowel. Primary closure of the perforation can be considered safe if the patient has presented early and the bowel is healthy, otherwise, exteriorization of the affected bowel as a loop ileostomy is a safer option. If there is a long segment of bowel that is diseased, or there are multiple perforations, resection with either primary anastomosis or exteriorization may be considered. Once biopsy confirms the diagnosis of tuberculosis of the bowel, anti-tubercular therapy is mandatory.

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