Ileal Perforation in a patient with acquired immune deficiency syndrome

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Abstract
Gastrointestinal involvement is common in patients of human immunodeficiency virus infection (HIV) and the acquired immunodeficiency syndrome (AIDS). Specific gastrointestinal disorders often correlate with degree of immunosuppression. In advance cases of HIV infection GI symptoms are usually part of systemic infection. In such scenario multiple infections are common so failure to diagnose a specific cause is not uncommon. We here present a case study of a patient with ileal perforation with tubercular etiology and its management

Key words: AIDS, Ileal perforation, tuberculosis

INTRODUCTION
The main surgical indications associated with abdominal pain in the people living with HIV (PLWH) are perforation, bowel obstruction, appendicitis, and cholecystitis. With the passage of time the spectrum of pathological conditions leading to emergent abdominal surgery in PLWH changes. We here present a case report of ileal perforation in a patient living with HIV, of tubercular etiology.

CASE REPORT
A 42 yrs old man presented with three years history of HIV infection with chief complains of nausea, vomiting, abdominal distension and upper abdominal pain of 2 weeks duration. The vomiting was bilious without hematemesis. There was no history of melena or hematochezia. His past medical history was remarkable. He also had history of pancreatitis 4 weeks prior to this episode. The pancreatitis was presumed to be HIV related and improved on conservative therapy. There was a history of intravenous drug use in the remote past. On clinical examination the patient was pale but not jaundiced. Vital signs revealed a normal temperature, pulse 96/minute, regular and blood pressure 156/104 mm Hg. Clinical examination of the chest and cardiovascular system was unremarkable. The abdomen was distended with mild diffuse tenderness. Guarding was present without rigidity. Bowel sounds were present but decreased in intensity and frequency. Moderate pitting edema of both lower extremities was noted.

Laboratory studies revealed a white cell count of 4.1x 10^3/ mm3 with a CD4 count of 8% and absolute CD4 count of 104 cells / mm3. The hemoglobin was 11 g/dl; hematocrit 34% and platelet count 184x 10^3/ mm3. Serum amylase and lipase were within normal limit. Skiagram of flat plate abdomen showed free gas under diaphragm suggesting hollow viscous perforation. Ultrasound abdomen showed free fluid in peritoneal cavity. On the basis of these investigations the diagnosis of perforation peritonitis was made and decision was taken for exploratory laparotomy.

On exploration there was a single perforation present in terminal ileum 10 cm proximal to the ileoceleal...
junction. There were two strictures were also present 10 cm apart in terminal ileum through which contents were passing easily. Multiple interloop adhesions and flakes were present all over the intestine. Miliary tubercles were present over the intestine and ventral peritoneal wall. Biopsy was taken from the edges of the perforation. Primary repair of the perforation was done. Thorough peritoneal lavage was done and anatomical closure was done in layers. Histopathological examination revealed tubercular etiology of perforation.

Patient was discharged on 7th postoperative day with instruction to take antitubercular therapy for 6 months and to continue his antiretroviral therapy. Sutures were removed on 10th Post-operative day.

**DISCUSSION**

Although abdominal pain is a common symptom in the people living with HIV, "acute abdomen", requiring surgical intervention is unusual. Patients living with HIV may have an "acute abdomen" from any of the multitude of conditions that affect the general population. Emergency laparotomy is usually required for appendicitis, cholecystitis and AIDS-related conditions leading to GI bleeding, perforation and ischemia.[1] Different pathologies may lead to perforation of the small intestine. Infection is the commonest cause of such perforations in developing countries. These include typhoid fever and tuberculosis specially in tropical countries.[2,3,4,5] Intestinal perforation due to rare opportunistic infection was also reported.[6,4]

As far as perforation in AIDS is concerned Cytomegalo Virus (CMV) is the most common cause for perforation in these patients.[6] Only 5% patients infected with HIV present with abdominal pain requires laparotomy.[6] Morbidity after laparotomy in AIDS patients reaches up to 50%.[7] Emergency abdominal surgery for AIDS-related conditions carries a three to four fold mortality risk than other etiologies. Sometime social and ethical factors may delay early diagnosis and timely intervention. These patients usually do not present with typical signs and symptoms of the disease and are prone to some unique pathological processes, which may have bizarre clinical presentations. In our case report the patient presented with pain abdomen with prior history of pancreatitis. It again posed a problem in diagnosing until skiagram revealed free gas under diaphragm. In our study cause of perforation was found to be tuberculosis in contrast to literature which shows CMV is most common cause of perforation in AIDS patients.[8] It has also been reported in literature that AIDS patients have increased morbidity and mortality rates after emergency abdominal operations. However surgery should never be deferred if clearly indicated since many will survive and benefit from the operative procedure.[7] So prompt diagnosis with immediate care of complication with adequate nutritional support result in increased survival.

**CONCLUSION**

Although CMV intestinal perforation is the most common cause of intestinal perforation in AIDS patients but tuberculosis is also an important cause specially in tropical countries. Primary repair of the perforation with antitubercular therapy should be given.

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