Management of disseminated tuberculosis in a peripheral hospital

MJAFI 2012;68:191–192

Dear Editor,

Tuberculosis (TB) remains a leading problem in public health in many parts of the world, mainly due to poor living conditions and increasing incidence of patients with human immunodeficiency virus (HIV) infection.¹ In patients, without HIV infection >80% of TB cases are pulmonary in nature and rest are disseminated.² The lack of specific signs and symptoms of abdominal TB frequently leads to missed or delayed diagnosis, which may result in severe complications like obstruction, perforation, or fistula formation.

A 24-year-old male presented to our hospital with complaints of low grade fever with evening rise of temperature, chest pain, cough, and scanty mucoid expectoration. Chest radiograph of the patient showed bilateral pleural effusions. Diagnostic aspiration of the pleural fluid showed an exudative fluid with predominantly lymphocytes and adenosine deaminase value of 100 U/L. Patient was diagnosed to be case of pulmonary TB. He was put on anti-tubercular treatment and pleural effusion on the right was drained with an intercostal drain (Figure 1). Ten days later, the patient developed acute abdominal pain associated with abdominal distension and vomiting. An erect abdominal radiograph showed dilated small intestine with multiple air fluid levels (Figure 2). Ultrasound (US) of the abdomen showed free fluid in the pelvis with thin floating septa (Figure 3). Multiple dilated small bowel loops were seen with adhesions between them.

Patient was taken up for exploratory laparotomy, which showed that whole of the small bowel was studded with tubercles. Small bowel loops were dilated with multiple fibrotic adhesions between them. Adhesionolysis was done, peritoneal toilet was given, and samples were taken for histopathological examination. Histopathological examination of the tubercles demonstrated caseating granulomata. Postoperative period was un-eventful and patient showed good recovery. Patient is presently taking anti-tubercular treatment; is on a regular follow-up and is presently asymptomatic.

Disseminated TB continues to remain a major health problem. Radiological modalities used for diagnosis of disseminated TB include radiographs of chest and abdomen, barium meal follow through (BMFT), US, and computed tomography. Radiographs of chest may show pleural effusion, lymphadenopathy, or parenchymal lung lesions. Radiographs of abdomen may

show dilated bowel loops with air fluid levels if the patient has intestinal obstruction. The BMFT may show narrowed rigid cecum, thickened ileocecal valve, deep fissures, and ulcers. Ultrasound may show mesenteric thickening, mesenteric lymphadenopathy, ascites, matted fixed small bowel loops, omental inflammation, and terminal ileal wall thickening. Computed tomography may show asymmetric wall thickening of the

Figure 1 Radiograph of the chest in postero-anterior projection showing bilateral pleural effusions, right > left. Intercostal drain is seen in the right pleural cavity.

Figure 2 Erect radiograph of the abdomen in antero-posterior projection showing dilated small intestines with multiple air fluid levels. Ryle's tube is seen in situ.

doi: 10.1016/S0377-1237(12)60044-6

Figure 3 Sagittal sonogram of the pelvis showing free fluid with thin floating septa. Urinary bladder is partially distended.

ileocecal valve and medial wall of cecum, and a heterogeneous mass that envelops the terminal ileum.³

To summarise, since a substantial number of patients present with few or atypical symptoms, the recognition of abdominal

TB remains challenging. Early and proper diagnosis of intestinal TB is necessary to prevent severe complications. The purpose of this letter is to highlight the fact that, in most cases, correct interpretation of radiographs and US is sufficient for diagnosis of disseminated TB if there is a high index of suspicion.

REFERENCES

1. Pérez-Solís D, Luyando LH, Callejo-Ortea A, Crespo-Hernández M. Case 90: disseminated tuberculosis. *Radiology* 2006;238:366–370.
2. Nakamura S, Yanagihara K, Izumikawa K, et al. Severe pulmonary tuberculosis complicating ileocecal intussusception due to intestinal tuberculosis: a case report. *Ann Clin Microbiol Antimicrob* 2008; 7:16.
3. Pereira JM, Madureira AJ, Vieira A, Ramos I. Abdominal tuberculosis: imaging features. *Eur J Radiol* 2005;55:173–180.

Contributed by
Lt Col U Rajesh*

*Classified Specialist (Radiodiagnosis),
150 General Hospital, C/o 56 APO, Pin – 900129.