An Unusual Case of Acute abdomen -? Is it C. difficile Infection

Sir,

A 72 year old man; known case of diabetes, hypertension and ischemic heart disease was admitted in a private nursing home with one day history of headache, vomiting, vertigo and convulsion. His CT brain was found to be normal and CSF examination was typical of pyogenic meningitis. Hematological investigations revealed a high leucocyte count of 18000/cmm. Blood biochemical profile was normal except for high sugar level. He was treated with injection Meropenem. He received insulin for control of blood sugar. With above measures he showed improvement in symptoms and improved in sensorium. The leucocyte counts which were initially raised were reduced to normal range. After three days he developed electrolyte imbalance in form of hypokalemia (K+ : 3.2 mg/dL).

On 5th day of admission he developed abdominal distension and constipation. On examination the bowel sounds were absent. Abdominal radiograph showed multiple air-fluid levels. The impression was paralytic ileus. However the condition did not improve despite potassium replacement. Serum potassium was corrected to 4 mg/dL. The next day patient developed fever and drowsiness and his WBC count rose to 29000/cmm.

At this stage the patient was transferred to our hospital as a case of acute abdomen with septicemia. The patient was evaluated and investigated. No evidence of infection was found in lungs, in urinary tract or at intravenous sites. There was no worsening of biochemical parameters. CT scan of abdomen showed generalized distension and thickening of bowel loops. No free fluid was found in the abdomen.

Considering old age of the patient, the initial response of meningitis to the antibiotic, redevelopment of a new infection at an unknown site leading to fever and high WBC counts, the history of abdominal complaints after antibiotic usage, and persistence of paralytic ileus despite potassium correction, one possibility was C. difficile infection. Though diarrhea is the most common presentation of C. difficile associated disease (CDAD), rarely the patient may present with adynamic ileus. In such cases the unexplained leucocytosis > 15000/cmm, fever and history of prior antibiotic use can be the only clues to the presence of unsuspected CDAD. The assay of Clostridium difficile toxin A and B in stool was asked for. The assay was positive. Patient’s value was 0.235 (Normal value - 0.209) by Enzyme Immuno Assay. Colonoscopy was not done in this patient because of his unstable general condition.

He was treated with intravenous Metronidazole. There was rapid improvement in abdominal complaints, fever, and level of consciousness. Leucocyte counts reduced to normal. Though the EIA report was only borderline positive, the patient responded well to the Metronidazole therapy as the treatment for C. difficile infection which makes us believe that this was CDAD.

Rarely patients with fulminant CDAD do not have diarrhea, and their illness mimics an acute surgical abdomen as in our patient. An acute abdomen (with or without toxic megacolon) may include signs of obstruction, ileus, bowel-wall thickening and ascites on abdominal computed tomography, often with peripheral blood leucocytosis (>25000/cmm). Signs of sepsis (fever, tachycardia, hypotension) may also be present. Hence whether or not the patient has diarrhea, in the differential diagnosis of an acute abdomen, sepsis or toxic megacolon one should include CDAD if the patient has received antibiotics in the past two months. Cautious sigmoidoscopy or colonoscopy to visualize pseudomembranous colitis and abdominal CT are the best diagnostic tests in the patients without diarrhea.

CDAD has received a lot of attention in the west as a grave nosocomial problem often leading to temporary closure of units due to spread of infection within hospitals. The widespread use of metronidazole in India probably has led to fewer reports of this infection. Also the assays are expensive. It is important to think of CDAD especially in hospitalized patients.

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