An atypical presentation of a common disease

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An 80-year-old patient with rheumatoid arthritis treated with methotrexate and plaquenil was admitted for chronic diarrhea and abdominal pain. Considerable ambulatory workup (including multiple blood, stool and urine tests and cultures; chest and abdominal X-rays and ultrasound; upper GIT barium series and two colonoscopies with biopsies) and one prior hospital admission were unhelpful. Diverticulosis (known in the past) was noted as a side finding. She was forced to stop driving her car and became completely bedridden. After several empiric treatment failures, she was admitted reporting 12 weeks of frequent (>10/day), macroscopically unremarkable diarrhea associated with tenesmus; constant lower abdominal pain with occasional colic; anorexia and marked weight loss, but neither fever nor sweats. Examination revealed cachexia (45 Kg, previously 56), with normal vital signs and bowel sounds. The lower abdomen was tender to deep palpation (Left>Right) with rebound tenderness but no rigidity, mass or other abnormality. Hb was 11.3 g/dl; WBC 10.2 x 10⁹/ul; platelets 545 x 10⁹/l; urinalysis, serum electrolytes, liver enzymes and thyroid tests were normal. Serum creatinine was 0.45 mg/dl, albumin 26 g/l. ESR 48 mm/h and CRP 68 mg/dl. A helical CT enterography with oral and intravenous (IV) contrast demonstrated sigmoid diverticulosis and an 8 x 6 cm fluid and fecal-containing mass around the sigmoid colon, with fistula to the urinary bladder (Figure 1). IV metronidazole and ciprofloxacin were administered and anterior resection of the rectum with synchronous temporary colostomy was performed. The patient was discharged to rehabilitation and subsequently to her home, feeling well.

Diverticulosis, the most common colonic disease, is age-dependent affecting nearly 70% in the Western world by the age of 80. Most remain asymptomatic. Acute diverticulitis may develop in 15–25%. Others (~10%) may show diverticular rectal bleeding which is typically non-inflammatory and painless.¹ Diverticulitis represents inflammation and perforation of a (predominantly) sigmoid diverticulum. It may present in myriad ways ranging from subclinical or simple diverticulitis (in 75%) to complicated disease, rarely even free perforation. Usually, microperforations are contained by pericolic fat and mesentery. However, pericolic inflammation may cause abscesses (pericolic or pelvic); adhesions (to small bowel, bladder, cecum); obstruction, strictures and fistulae as in our patient. Diverticulitis typically causes abdominal pain often maximal at the left lower quadrant (LLQ), a change in bowel habits, fever and leucocytosis. Nevertheless, ~10% of patients may be painless; fever may be low-grade or absent and >40% have no neutrophilia. Our patient presented with severe complications of acute diverticulitis. Chronic diarrhea, normal temperature and near-normal blood tests (during previous workup) dominated her course. This misleading presentation was likely due to her advanced age and immune status.² Elderly and immunocompromised patients (both increasingly encountered) are more prone to perforations and may present atypically, often with muted symptoms and signs and an indolent, smoldering course.¹² Given the variety of
symptoms that can mimic many diseases (Box),\textsuperscript{1} diagnosis can be difficult and pathology may be underestimated. Once considered, CT appears to be the preferred test.\textsuperscript{3} Colonoscopy had better be avoided because of its potential risk, technical difficulty and since diverticulitis is essentially an extraluminal process.\textsuperscript{3} Patients with severe symptoms, advanced age, comorbidity or complications need to be hospitalized. Bowel rest, IV antibiotics (Gram-negative and anaerobic coverage) and analgesia is the mainstay of treatment. Immunosuppressed patients need a lower threshold for surgery, which is mandatory in complicated diverticulitis (abscess not amenable to percutaneous drainage; fistula; failure to improve) and curative for most patients. The increasing incidence of acute diverticulitis\textsuperscript{5} and the expected increase in atypical presentations and complications warrant heightened awareness of the diagnosis and its many guises.

\textbf{Box}

Main differential diagnosis of acute diverticulitis and complicated diverticulitis\textsuperscript{a}

- Colon carcinoma
- Ischemic colitis
- Infectious colitis
- Inflammatory bowel disease (especially Crohn’s)
- Irritable bowel syndrome
- Acute gastroenteritis
- Acute appendicitis
- Urinary tract infection
- Nephrolithiasis
- Gynecologic disorders (Pelvic inflammatory disease; ovarian cyst or torsion; endometriosis)

\textsuperscript{a}Presentations of acute diverticulitis as chronic diarrhea; prolonged febrile illness; or chronic lower abdominal pain had been reported.

\textbf{‘Take Home’ points}

- Acute diverticulitis is common and its incidence in Western countries is rising
- Acute diverticulitis may mimic a variety of diseases. A high index of suspicion is warranted.
- Elderly or immunocompromised patients in particular may present atypically and have more complications. Symptoms and signs may be muted or absent and severity of the disease may be underestimated.
- Abdominal CT is the most reliable diagnostic modality.
- Bowel rest, broad-spectrum antibiotics and close monitoring are the mainstays of therapy. Complications mandate early surgery.

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\textbf{References}

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