Case Report

Atypical Appendicitis in the Elderly†‡

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SUMMARY

A 79-year-old man presented to our emergency department with abdominal fullness without stool passage for 2 days. Blood tests showed no evidence of leukocytosis, and the plain film of abdomen revealed small bowel ileus. He had no history of any operation. He complained of progressive distention of abdomen, and computed tomography (CT) of abdomen was arranged for him; engorged appendix with inflammatory process of pericecal space was found. Under suspicion of appendicitis, the general surgeon decided to perform exploratory laparotomy. A pathologist proved the appendicitis. Sole presentation of ileus in appendicitis is found in only 4.4–5.8% of appendicitis, and physicians in the emergency department should keep in mind the possibility of appendicitis even if the patient does not ever complain of abdominal pain, especially in the elderly.

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1. Introduction

Acute appendicitis is one of the commonly seen surgical conditions in the emergency department (ED). The most common symptoms of appendicitis are anorexia, nausea, and vomiting. In physical examinations, localized right lower quadrant (RLQ) abdominal pain with migration from epigastric or periumbilical area is a typical presentation of appendicitis, and this accounted for two-thirds of the cases. Some cases of appendicitis presented as RLQ tenderness without migration of tenderness. Herein, we present an elderly man with acute appendicitis without significant abdominal pain but complaining of abdominal fullness for 2 days. In ED, we should be aware of atypical presentation of appendicitis solely with abdominal fullness without significant abdominal pain in the elderly.

2. Case report

A 79-year-old man presented to our ED with epigastralgia, nausea, vomiting, and abdominal fullness for 2 days. He denied any operative history. His body temperature was 37.3°C; pulse, 109 beats/min; respiratory rate, 20 breaths/min; and blood pressure, 122/58 mmHg. Physical examination revealed abdominal distention, tympanic percussion of abdomen, and no evidence of RLQ abdominal tenderness. The lung examination was normal, with clear breath sounds bilaterally. No skin lesions were seen. Blood tests showed normal white blood cell count (WBC, 6,700/mL; neutrophil, 91%). Biochemistry studies showed the following: glucose, 165 mg/dL; blood urea nitrogen, 47 mg/dL; creatinine, 4.3 mg/dL. Urine analysis showed a slight infection of the urinary tract with 16 WBC/field of urine. Kidney–ureter–bladder (Fig. 1) demonstrated dilated small bowel, indicating a small bowel ileus. We gave him a metoclopramide injection and nasogastric tube insertion for decompression. Sustained and progressive small bowel distention and fullness were complained of. Hence, we arranged for computed tomography (CT) of abdomen, which revealed small bowel dilatation. The widest diameter was measured as 5 cm (Fig. 2). In the meantime, in the RLQ area, pericecal inflammatory change was noted with engorged appendix measured 1.0 cm in diameter (Fig. 3). Surgical intervention was performed after consultation with the department of general surgery. Grossly, we found abscess at the pericecal space, and the appendix inflammation was noted during the operation. The report of the pathologist described it as an acute suppurative appendicitis. He was recovered and discharged after 5-day intensive care unit and 10-day ward care.

3. Discussion

Appendicitis is one of the most common abdominal emergencies. The overall lifetime risk is 8.6% for males and 6.7% for females.
in the United States\textsuperscript{1}. It is commonly seen in males than in females, with a ratio of male:female being 1.4:1. Despite the progress of medicine and advancement of diagnostic tools, there are still about 18.2\% of appendicitis cases been misdiagnosed\textsuperscript{2}. In typical presentation of appendicitis, it can be diagnosed and treated promptly. However, in the atypical presentation of appendicitis, more diagnostic tools are required to assist and make accurate diagnosis. The elderly, in particular, do not sense the pain even if there is ominous inflammatory process progression.

Among the symptoms of appendicitis, loss of appetite is often a predominant feature. Additionally, nausea and vomiting may appear. The initial pain represents a referred pain resulting from the visceral innervations of the midgut, and the localized pain is caused by the involvement of the parietal peritoneum after the progression of the inflammatory process. The site of maximal tenderness is often said to be over the McBurney's point, which is located at two-thirds of the way along a line drawn from the umbilicus to the anterior superior iliac spine. Typically, the patient describes a peri umbilical colicky pain, which intensifies during the first 24 hours, becoming constant and sharp, and migrates to the RLQ area. This is the so-called typical appendicitis that has the "migration of pain," and it led to the diagnosis of appendicitis rather than by other symptoms and signs\textsuperscript{1}. Abdominal pain is the primary presenting complaint of patients with acute appendicitis. In our case, this old man felt abdominal distention rather than significant abdominal pain. Normal WBC count without obvious abdominal pain and simultaneous exaggerated ileus made us to proceed with a CT scan, and appendicitis was found eventually. Exploratory laparotomy is the treatment of choice. This case is not of a typical appendicitis.

There are 80\textemdash 90\% of appendicitis cases having elevated WBC; even if normal, we cannot exclude the possibility of appendicitis totally\textsuperscript{1}. Ileus is a commonly seen symptom in ED. Many situations, such as acute gastroenteritis, acute biliary colic, peptic ulcer disease, renal colic, pelvic inflammatory disease, and hypokalemia, may lead to ileus. About 4.4\textemdash 5.8\% of ileus accounts for appendicitis\textsuperscript{3\textemdash 5}. In 1926, Dudley GS\textsuperscript{5} first described (2 of 46) the ileus presentation of appendicitis. In 1989, Mowji PJ\textsuperscript{6} first ever reported an early sign of appendicitis as focal dilatation of a loop of small bowel identified in the left upper quadrant abdomen in 51\% of suspected appendicitis cases. The mechanism is decrement of intestinal motility because of the irritation caused by the infection that is followed early by distention of the gut’s lumen and more or less stasis of its content. Fibrinous exudate readily mats together the adjacent inactive loops forming many kinks that result in an even greater impediment to the onward propulsion of the intestinal content. Total obstruction may occur\textsuperscript{5,7}.

Considering the issue of analgesia, an early use of opiate is not related to delay in diagnosis of appendicitis. Nevertheless, early use of nonsteroid anti-inflammatory drug is associated with delay in
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4. Conclusion

In elderly patients with appendicitis, the initial diagnosis is correct only one-half of the time, and there are increased rates of perforation and mortality when compared with those in younger patients. For the progressive ileus without previous abdomen operative history in the elderly, prudent physical examinations and advanced diagnostic tool are life saving for early aggressive management.

References