A cascade of abscess, fasciitis and obstruction: rare presentation of perforated appendicitis

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1 INTRODUCTION

Acute appendicitis continues to be the most frequent cause of acute abdomen requiring surgical intervention and the most common general surgical emergency seen in the majority of hospitals. It usually presents in the first 24 to 48 hours of onset. The diagnosis of acute appendicitis is usually based on a carefully taken history and physical examination. Radiologic studies can also be helpful in patients with atypical presentations(1, 2). The most used imaging studies are ultrasonography and computed tomography. While ultrasonography is more accessible, the latter is the modality of choice due to finer accuracy(3).

Since only two-thirds of patients with acute appendicitis present with the classic symptoms, patients with less acute symptoms may be missed (4). One of the complications of a missed acute appendicitis is perforation of the appendix, which should be suspected in cases with temporary improvement in visceral pain, soon followed by symptoms of peritonitis (1). In this report, we present a 44-year-old Afghan male, a rare case of undiagnosed appendicitis, manifested first time with fasciitis and several abdominal abscesses with no physical examination, radiologic, or laboratory findings in favor of appendicitis. The diagnosis of Perforated appendicitis finally became clear after three months via laparotomy when the patient referred again to surgery clinic with intestinal obstruction. We believe this is the first report of fasciitis and obstruction as together being very delayed consequences of appendicitis, leading to a late diagnosis thereof. This case has been reported in line with the SCARE criteria (5).

2 CASE REPORT

A 44-year-old Afghan man presented to the emergency department of our hospital in August 2023 with a complaint of discharge from the abdomen which had started two months \soutformer earlier. He had mentioned episodes of fever, chilling, and nausea without vomiting. He also mentioned having distention of abdomen for three months. There was no significant past disease, family, allergy or surgery history. He mentioned neither history of previous trauma nor injury. His drug history was only positive with daily 15 cc oral methadone consumption as a treatment for opioid use disorder. Physical examination showed a pulse of 78 bpm, a BP of 105/70 mmHg, a respiratory rate of 18 bpm, and a temperature of 36.8 °C. He had no signs of acute abdomen. He presented with fasciitis in his right thoracoabdominal region and an orifice discharging pus on the left upper quadrant of the abdomen (Figure 1).

Laboratory tests showed a WBC of 10.400/µL, neutrophils at 74.8 %, RBC of 3.8/µL, CRP of 81 mg/dL. The culture and smear of blood and purulent secretions from the wound \RL were negative. MTB-PCR performed to rule out abdominal tuberculosis, was negative. Sonography of soft tissue revealed an hypoecho tract with 3.5mm thickness at depth of 15mm from skin indicating a fistula. It also showed a hypoecho heterogenous zone at caudate lobe of liver 40×70 mm indicating liver abscess. Abdominal and Pelvic CT

scan demonstrated three sites of collection inside in left paracolic region, pelvis, and caudate lobe of liver as shown in Figure 2.

Figure 1 A. Orifice discharging pus B. Fasciitis in right thoracoabdominal region

Figure 2 CT scan showing three abdomen abscesses in caudate lobe of liver (red arrow; A), left paracolic region (red arrow; B), and pelvis (red arrow; C)

not-yet-known not-yet-known not-yet-known unknown

1 Author/Year	Jie Hua/ 2015(11)
Age	50-year-old
Sex	Male
First presentation of appendicitis	Right-sided abdominal pain and a fever of 38.5°C
Diagnosis	Swollen appendix with abscess formation in the retroperitoneum
Management	Intravenous antibiotics (Ceftazidime: 3 g/day, and Metronidazole: 1.5 g/day), The antil

1 Author/Year

Our research was not without limitations. His opium addiction, which reduced his discomfort from the thoracoabdominal fasciitis, may have contributed to the patient's delayed arrival. Addiction to drugs has rarely been observed to conceal the symptoms of a perforated appendix. However, a male patient who had stopped using amphetamine and marijuana for ten days before the major complaint of stomach pain lasting two to three days was diagnosed with appendicitis. An appendix rupture was seen during the procedure. The attending physician evaluated this case and found that the patient voluntarily guarded his abdomen and did not cooperate reasonably with doctors (15). This case led us to hypothesize that the patient's late primary visit to hospital was likely caused by daily methadone use.

In addition, our patient's lack of communication skills and immigration status prevented him from receiving quality care during his prior visits. Our utilization of anastomosis rather than ileostomy was compelled by the patient's low socioeconomic status, which was one of our constraints. mostly because of their poor socioeconomic status, our patient was unable to care for ileostomy .

While most cases similar to this study's case resulted in the patient's eventual death, our case was discharged from the hospital in good health despite the complex conditions he experienced. This was one of our advantages over other similar studies. The study's ability to manage anastomotic leak without the need for a stoma is another noteworthy feature.Our patient had a detailed follow-up and postoprative follow-up was done accurately.

5 CONCLUSION

This case suggests clinicians should be aware of these uncommon presentations and evaluate the patient's complete clinical picture instead of relying only on imaging data to prevent misdiagnoses and delays in care.

AUTHOR CONTRIBUTIONS

Ramin Bozorgmehr: Conceptualization, supervision and review & editing

Nastaran Hossein Shiroudi: Data curation and investigation

Fatemeh Bastan: Visualization and writing – original draft

Mehrsa Jalali: software and writing – original draft

Nazanin Alibeik: Data curation and methodology

Maryam Rashidian: Software, writing – original draft and review & editing

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None.

CONFLICT OF INTEREST STATEMENT

None.

CONSENT

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Ethics approval

All ethical and moral issues have been considered in this study.

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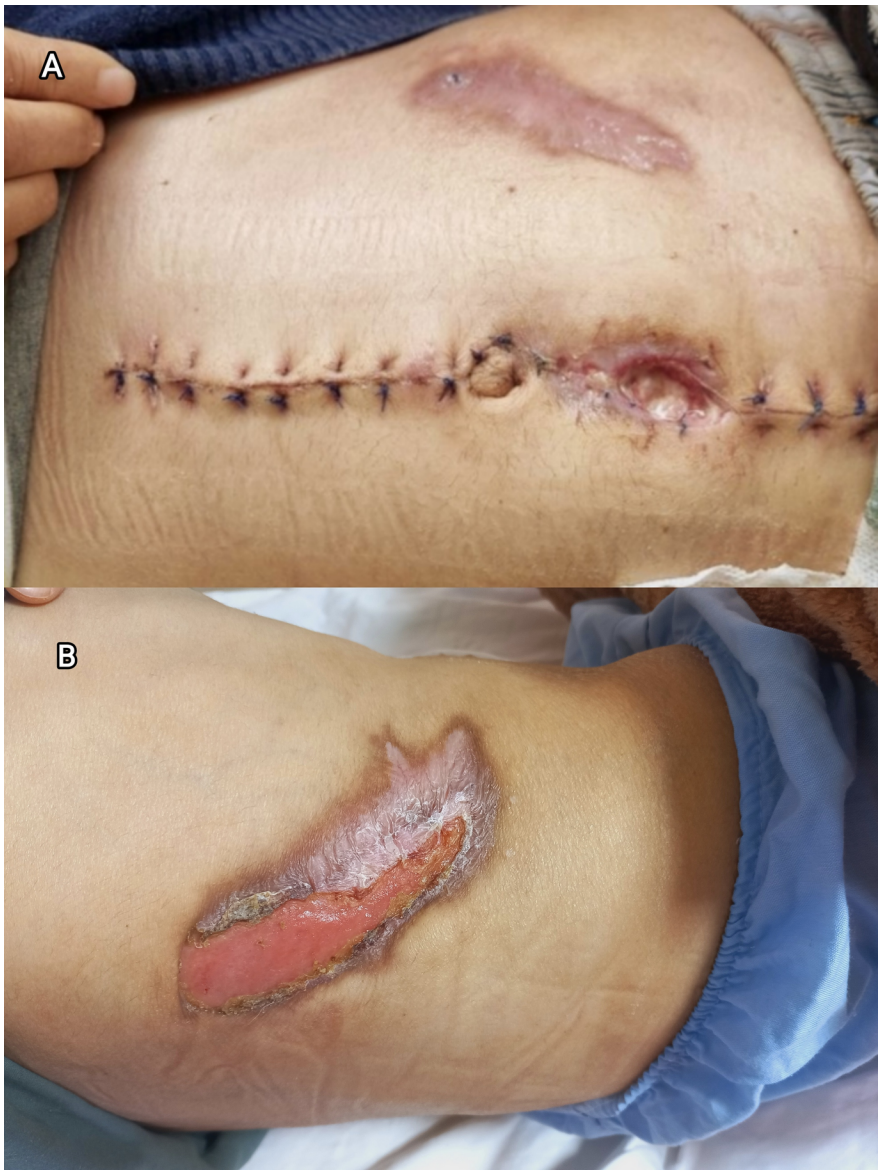

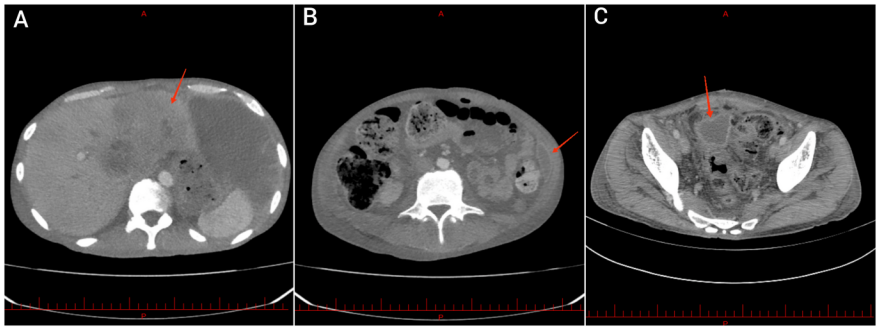

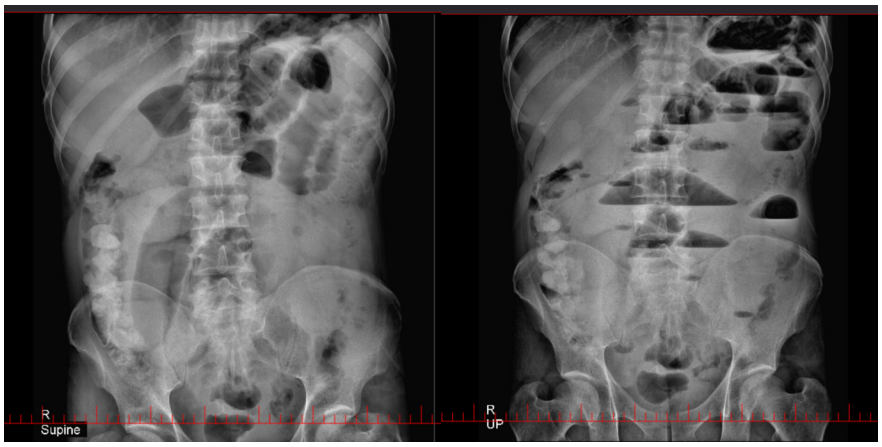

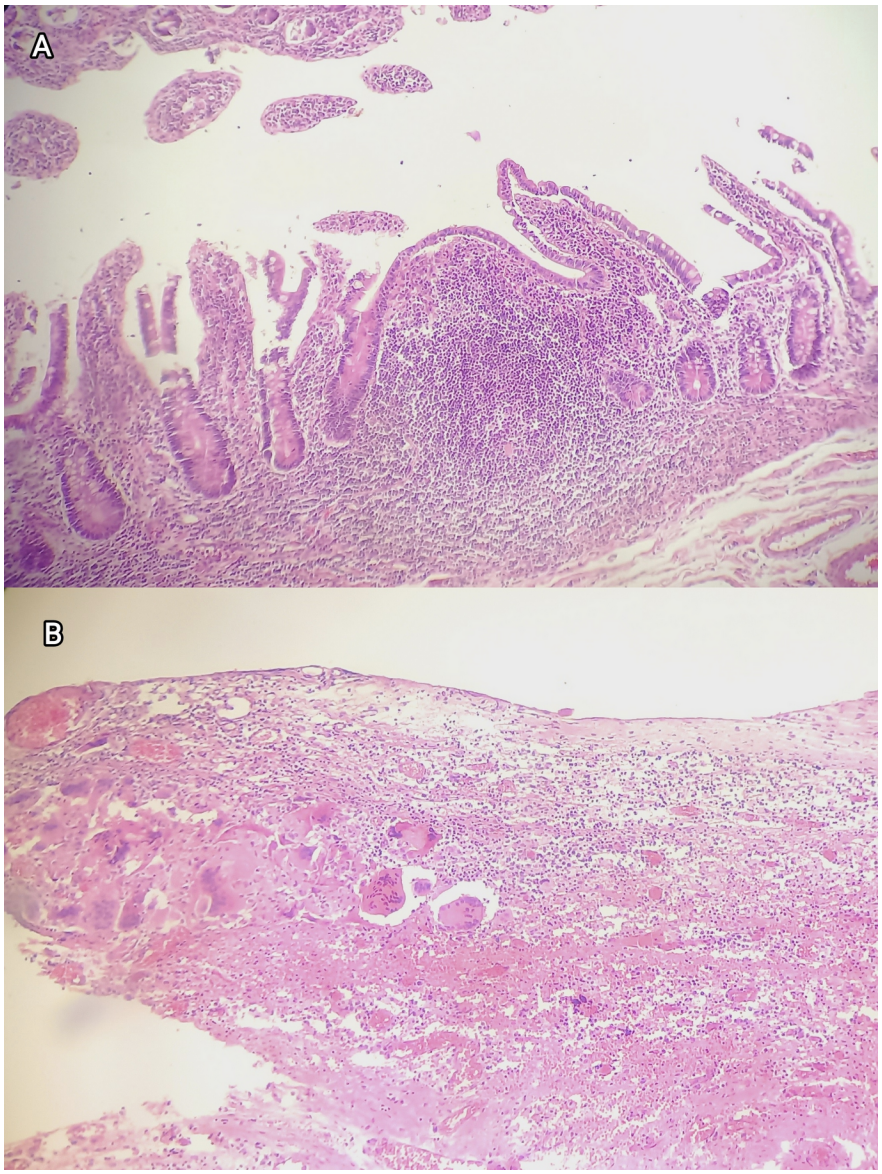

23/25/03	Abdominal pain	ER
23/10/08	Admission due to pussy discharged fluid	Infection Ward
23/13/08	Surgical drainage failed due to abdominal adhesion	
23/21/08	Percutaneous drainage of left paracolic abscess	
23/04/09	Catheter extracted and discharge	
23/11/11	Symptoms of small bowel obstruction	Surgial Ward
23/12/11 - 23/15/11	Bowel rest with fluid and anti-biotic resuscitation	
23/15/11	Surgical laparotomy	
23/15/11	Admission to Surgical ICU	SICU
23/19/11	Discharge	
23/05/12	Fistula and surgical site infection	Surgical Ward
23/06/12	Surgical wound washout and debridement	
23/12/12	Percutaneous drainage of abscess	
23/16/12 - 24/10/01	TPN	
24/14/01	Discharge	

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