



A Nonspecific Problem?

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Ruth's presentation

- Ruth, 36, presents to the emergency department (ED) with a 10-day history of gradually increasing right lower quadrant pain.
- She denies having a fever, nausea, vomiting, diarrhea or constipation.
- She denies being sexually active.
- She has seen her family physician twice in the last week and has had urine and blood tests done, both of which are normal.

Exam

- Vitals
 - Blood pressure: 118/68 mmHg
 - Heart rate: 82 beats per minute
 - Respiratory rate: 14 breaths per minute
 - Temperature: 38.0 C
- Head, neck and respiratory exam: Unremarkable
- Abdomen: Diffuse tenderness over her right lower quadrant; no peritoneal signs and remainder of the abdomen is nontender
- Investigations in the ED reveal:
 - White blood cells: 9.4×10^9 L
 - Hemoglobin: 132 g/L
 - Beta human chorionic gonadotropin: Negative
 - Urinalysis: Negative

Questions & Answers

1. What is the likelihood a specific cause will be identified for abdominal pain?

Abdominal pain is a common presenting complaint in the emergency department (ED) and a specific cause is not always found. Thirty-five per cent to 45% of young, previously healthy patients who present to the ED with abdominal pain will be discharged without a specific cause identified. The term nonspecific abdominal pain (NSAP) has been used to describe this group.

Characteristics most commonly associated with a diagnosis of NSAP are:

- duration of pain longer than five days,
- poorly localized pain or localized only to the right lower quadrant and
- an absence of associated symptoms, such as vomiting.

The diagnosis of NSAP is more common in females and those under age 30. Studies of patients discharged with the diagnosis of NSAP show a generally favourable course. In one study, 57% were improved within a week and over 80% improved or resolved within a month. A small percentage (3% to 5%) will subsequently have a specific cause identified for their abdominal pain.

2. Are there tests that can reliably distinguish NSAP from other, more serious causes of abdominal pain?

The testing that should be carried out prior to making a NSAP diagnosis is controversial. Some studies suggest history and physical alone are sufficient to differentiate between "organic" and "nonorganic" causes of abdominal pain. A normal white blood cell (WBC), abdominal film and/or urinalysis are consistent with NSAP, but not diagnostic. Many patients with serious causes for their abdominal pain will have no abnormality identified on these tests and a mildly elevated WBC may be consistent with NSAP.

Some studies have adopted aggressive approaches to NSAP, subjecting all patients to laparoscopic surgery or computed tomography (CT) scans. While these strategies identify the small number of patients with a specific cause for their

Back to our patient...

- In this patient, the progressive nature of her pain, her low-grade temperature and her multiple visits all suggest nonspecific abdominal pain is not an appropriate diagnosis.
- A computed tomography (CT) scan of her abdomen is obtained (Figure 1).

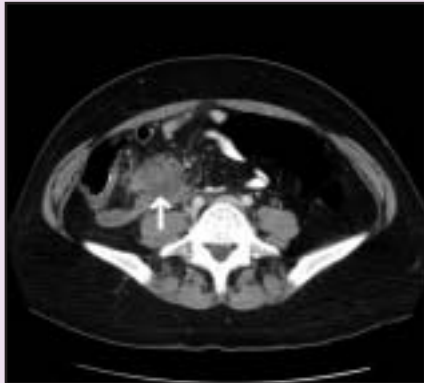


Figure 1. CT scan of the patient's abdomen.

Ruth's diagnosis is appendiceal abscess (see *Question 3* for details).

The patient is admitted for intravenous antibiotics and analgesia, with appendectomy to be carried out at a later date.

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pain, they subject many other patients to unnecessary testing and may generate incidental findings that are difficult to interpret and manage.

3. What is the diagnosis?

Ruth's symptoms point to appendiceal abscess. The most common complication of appendicitis is perforation, with an estimated rate of 15% to 30%. However, appendicitis can be complicated by an appendiceal abscess or phlegmon in 2% to 6% of patients. The typical presentation is with right lower quadrant pain, fever and a palpable mass in the right lower quadrant.

Some patients describe previous similar episodes of right lower quadrant pain and the duration of pain with the presenting episode may be longer than the typical two- to four-day course of acute appendicitis. An elevated WBC is helpful, but not always present.

4. How is this problem managed?

While immediate removal of the appendix is the treatment of choice for acute appendicitis, early appendectomy for appendiceal abscess has significant morbidity, with reported complications occurring in 36% to 67% of patients. Most surgeons prefer to manage appendiceal abscess nonoperatively, with appendectomy carried out at a later date.

Studies directly comparing these two strategies have demonstrated a higher rate of complication in patients undergoing immediate appendectomy versus expectant management (58% vs. 15%). Nonoperative strategies include percutaneous drainage (with ultrasound or CT guidance) or antibiotic therapy alone in selected cases. **Dx**

Resources

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