

Objectives

- To highlight that appendicitis can present with atypical signs, symptoms or bed side test results

Background

Acute appendicitis is the most common abdominal surgical problem and stereotypically presents with colicky umbilical pain that migrates to the right iliac fossa followed by the onset of vomiting. Diagnosis is typically a clinical decision.

Clinical History

A 35 year old female presented with four days of:

- Diarrhoea and vomiting
- Spasmodic suprapubic abdominal pain
- Fluctuating fever
- Increased urinary frequency.

Examination

- Observations – HR 95, BP 115/82, O₂ saturations in air 97%, temperature 37.1°C
- Alert, visibly sweaty, pink, warm hands
- Abdomen - soft, tender in the left iliac fossa, no guarding, bowel sounds were quiet

Investigations

- Urinalysis – nitrites +, leukocytes 2+, blood 3+
- Bloods – WCC 17x10⁹, CRP 303mg/L

Management (included)

- Surgical team review – impression: Urinary tract infection +/- gastroenteritis

Imaging

- CT abdomen/pelvis (fig. 1a)
- Erect chest X-ray (fig. 1b)

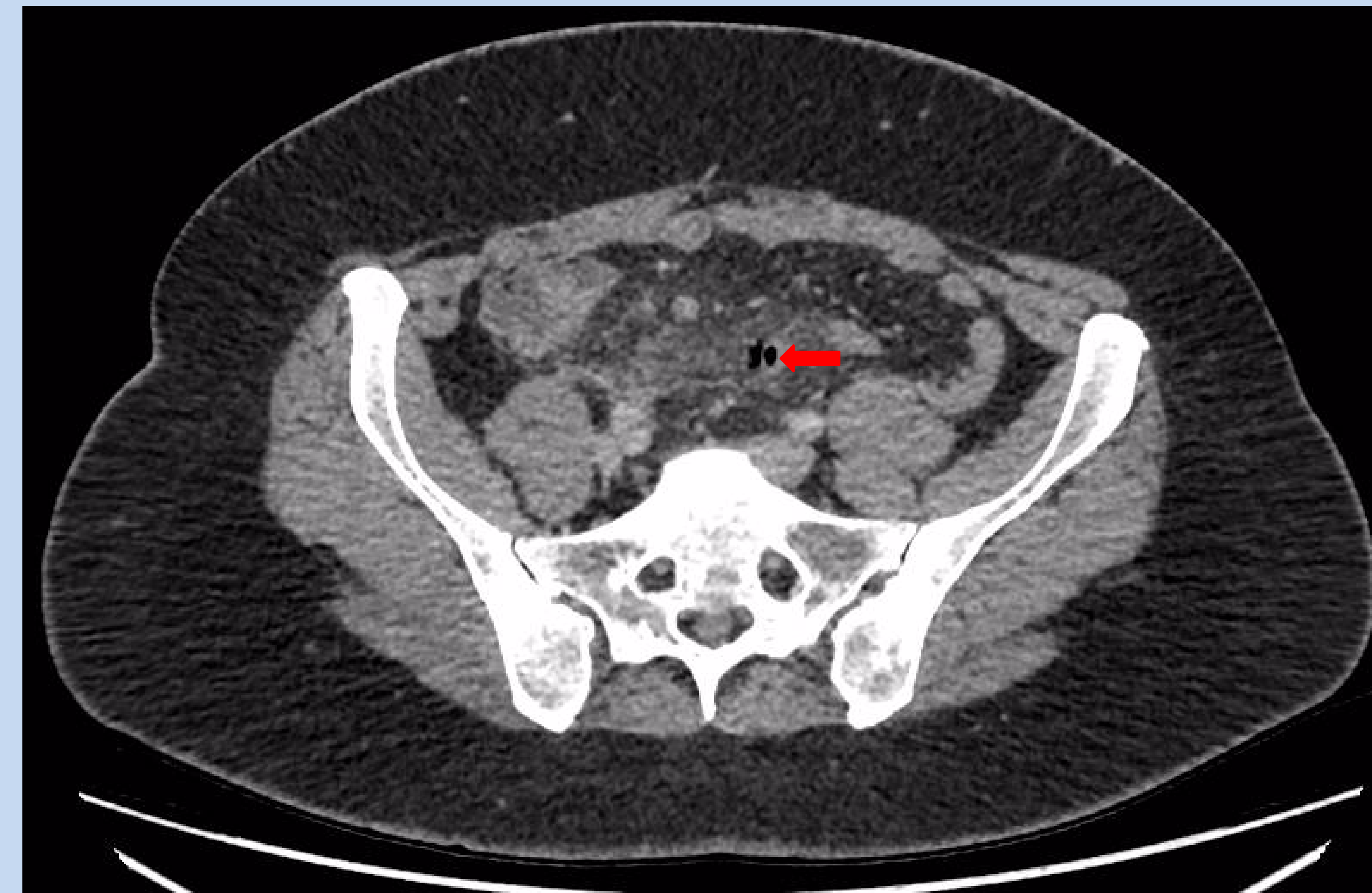


Fig. 1a

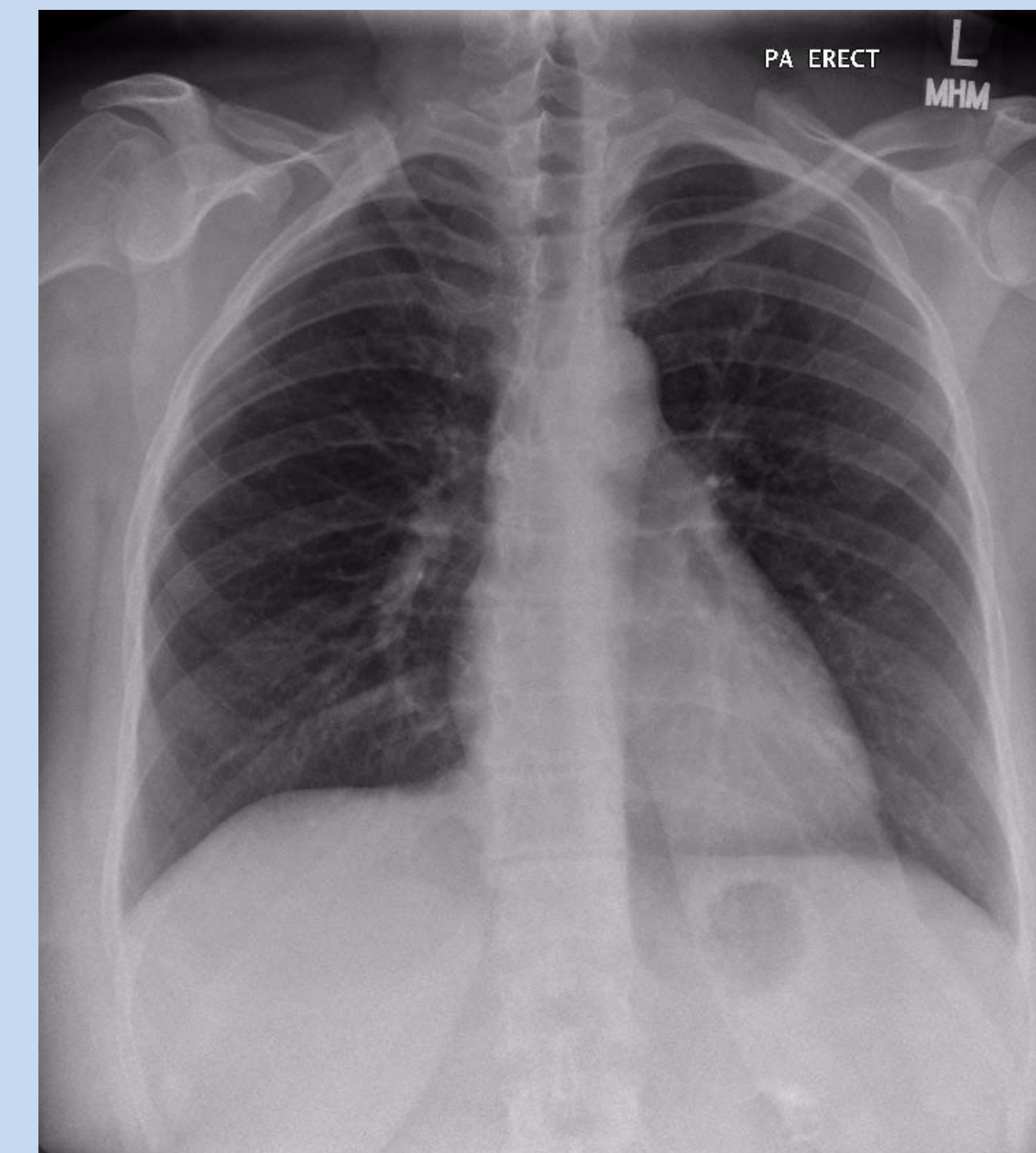


Fig. 1b

Fig. 1a. CT Abdomen/pelvis - perforated appendix on the left of the abdominal midline with free gas in the pelvis (arrow). There is local abscess formation surrounding the perforation and prominent dilated small bowel loops consistent with ileus.

Fig. 1b. Erect chest X-ray. There is no air under the diaphragm suggestive of bowel perforation.

Anatomy of the Appendix

- Length – variable, (approx. 2-20cm)
- Location of the tip of the appendix is variable (fig. 2).

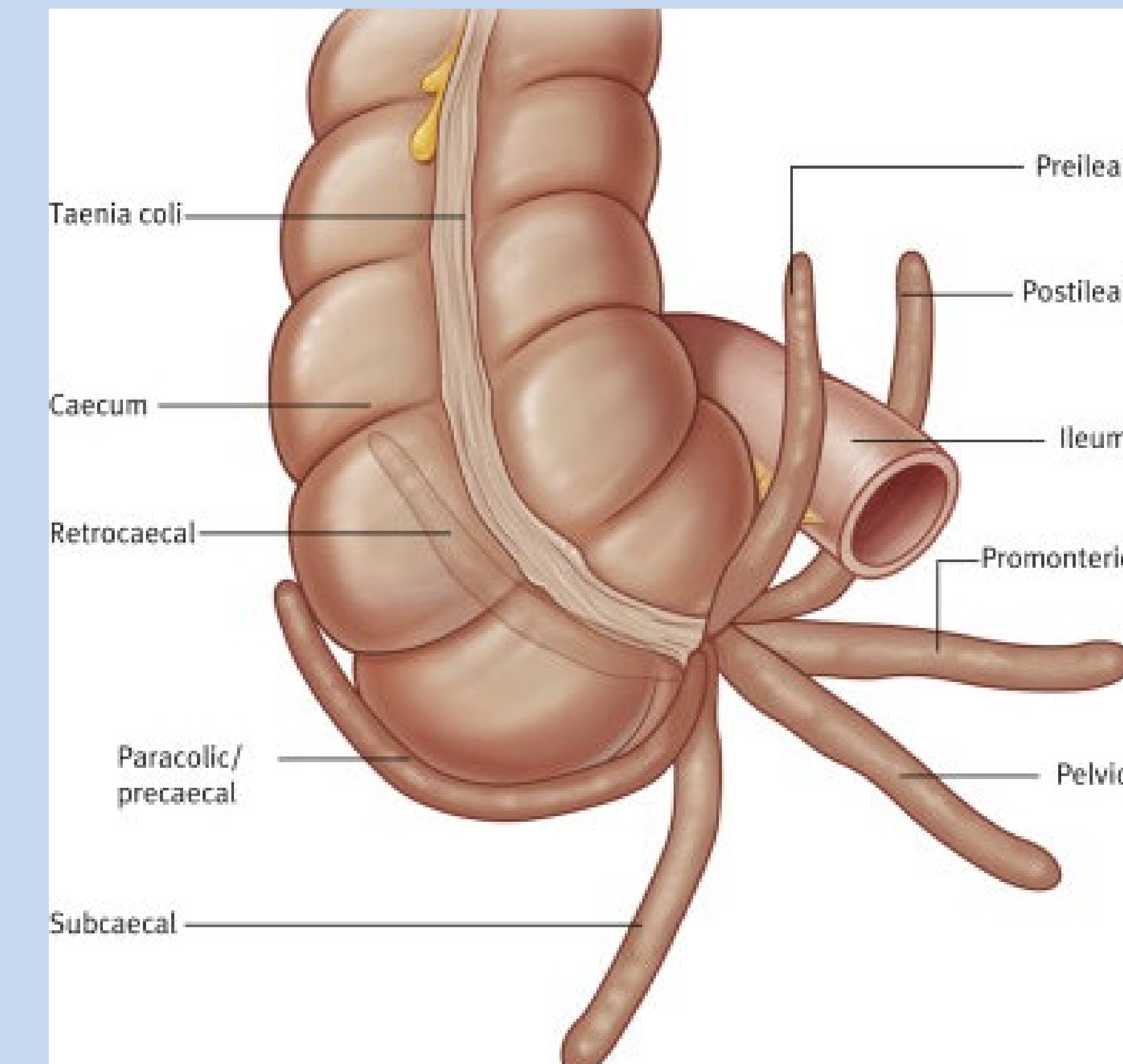


Fig. 2. The different anatomical positions of the appendix.

Key learning points

- The classical symptoms of acute appendicitis only manifest in half of affected patients
- Atypical signs and symptoms can be related to the anatomical location of the inflamed appendix irritating pelvic and subcaecal structures
- Microscopic haematuria and leucocytes can be positive on urinalysis in appendicitis
- Clinicians should be aware of the variable clinical presentations and should consider imaging to explore the differential diagnoses further.

References: 1) Sen-Kuang Hou et al. 2005. JCMS, 68 (12):599-603
2) See TC et al. 2008. JMIRO. 52 (2): 140-147.