

Acute Abdomen



Mr Ahmed Hawash FRCS

Associate Specialist Colorectal Surgeon

Associate Head of Academy

Honorary Senior Lecturer, Birmingham University

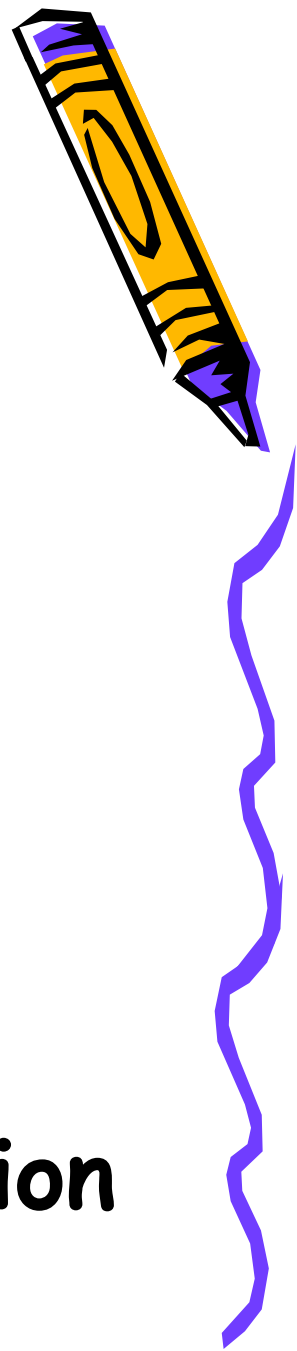
Acute Abdomen

- A rapidly developing acute abdominal pain
- A diagnostic challenge
- Main causes include:
 - Obstruction
 - Peritonitis
 - Intraperitoneal bleeding
 - Mesenteric infarction

Presentation

- **Depends on aetiology and pathogenesis**
- **Typical symptoms at start of the disease**

Common causes of acute abdomen



- Appendicitis
- Cholecystitis
- Pancreatitis
- Perforated peptic ulcer
- Small bowel obstruction

Mesenteric ischaemia/infarction

Diverticulitis



Pain

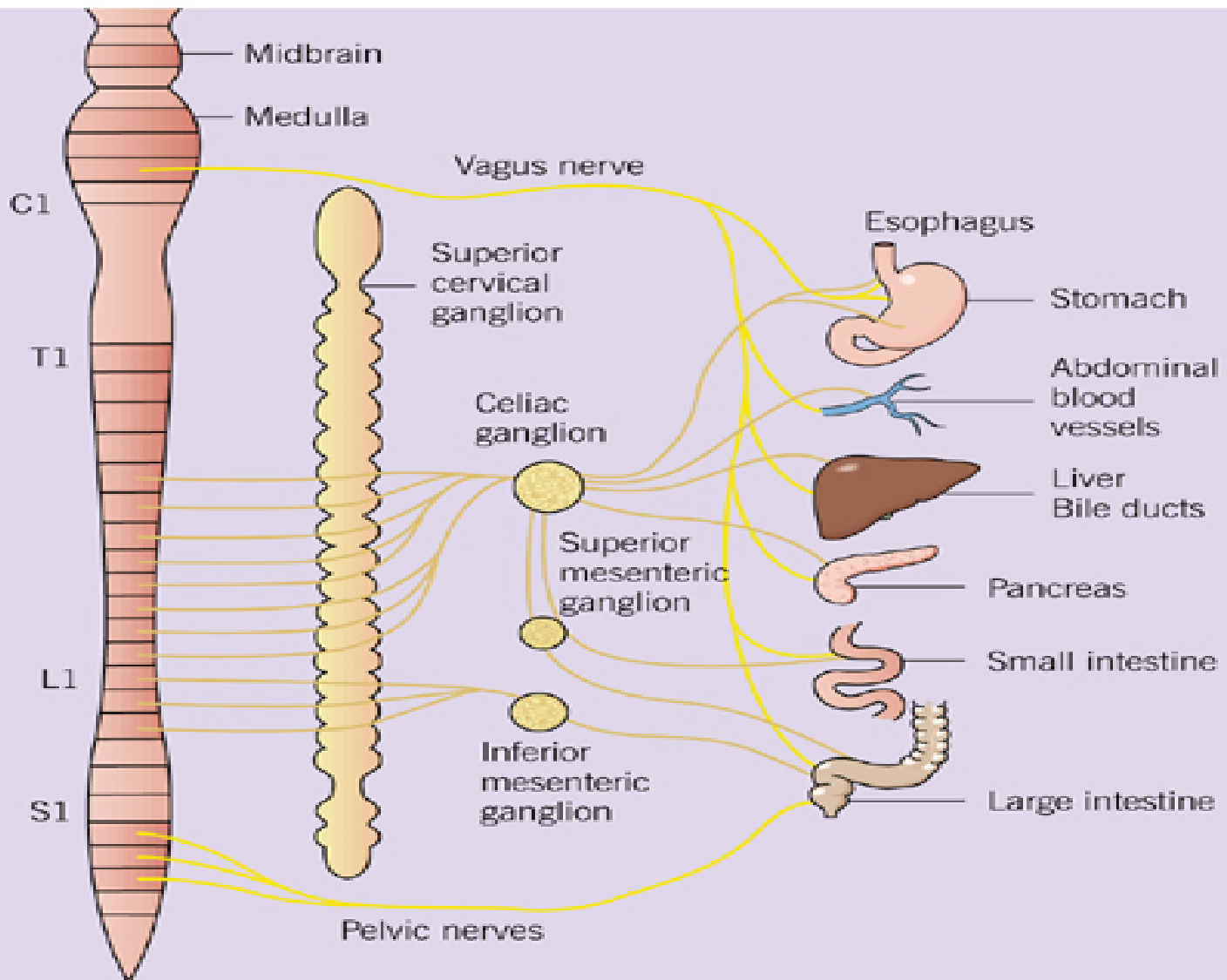
■ Somatic pain

- Localized, sharper, brighter and lateralized e.g acute appendicitis
- Transmitted through intercostal and phrenic nerves to CNS
- Irritation of parietal peritoneum, root of mesentery and diaphragm

■ Visceral pain

- Dull, vague and poorly localized, not lateralized
- Transmitted through sympathetic and parasympathetic nerves
- Increased tension in wall, stretching of capsule of solid organ, ischaemia, and certain chemicals

VISCERAL INNERVATION



Diagnosis

- **Easy in early stages**
- **Later symptoms overlap**
- **Experienced clinicians make a correct diagnosis of acute abdomen on 4 out of 5**
- **Younger doctors in half the cases**
- **Computer-assisted diagnosis**



History

- **Pain**
 - **Site**
 - **Radiation**
 - **Onset**
 - **Frequency**
 - **Aggravation and alleviation**
 - **Severity and type of pain**

Appendicitis

- **Onset** **Hours to days**
- **Location** **Early: periumbilical**
Late: right lower quadrant
- **Character** **Dull ache**
- **Radiation** **Right lower quadrant**
- **Intensity** **3/5**

Perforated peptic ulcer

- Onset Minutes
- Location Epigastrium
- Character Sharp/burning
- Radiation None
- Intensity 5/5

Cholecystitis

- **Onset** Minutes to hours
- **Location** Right upper quad.
- **Character** Sharp
- **Radiation** Scapula
- **Intensity** 3/5

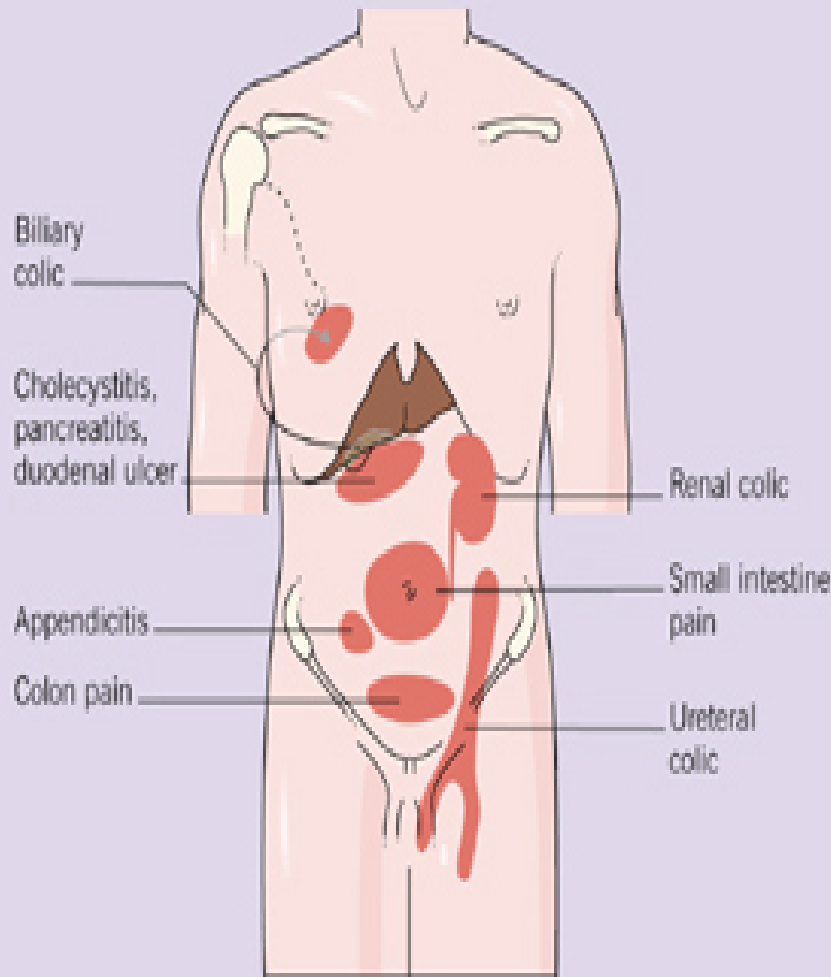


Small Bowel Obstruction

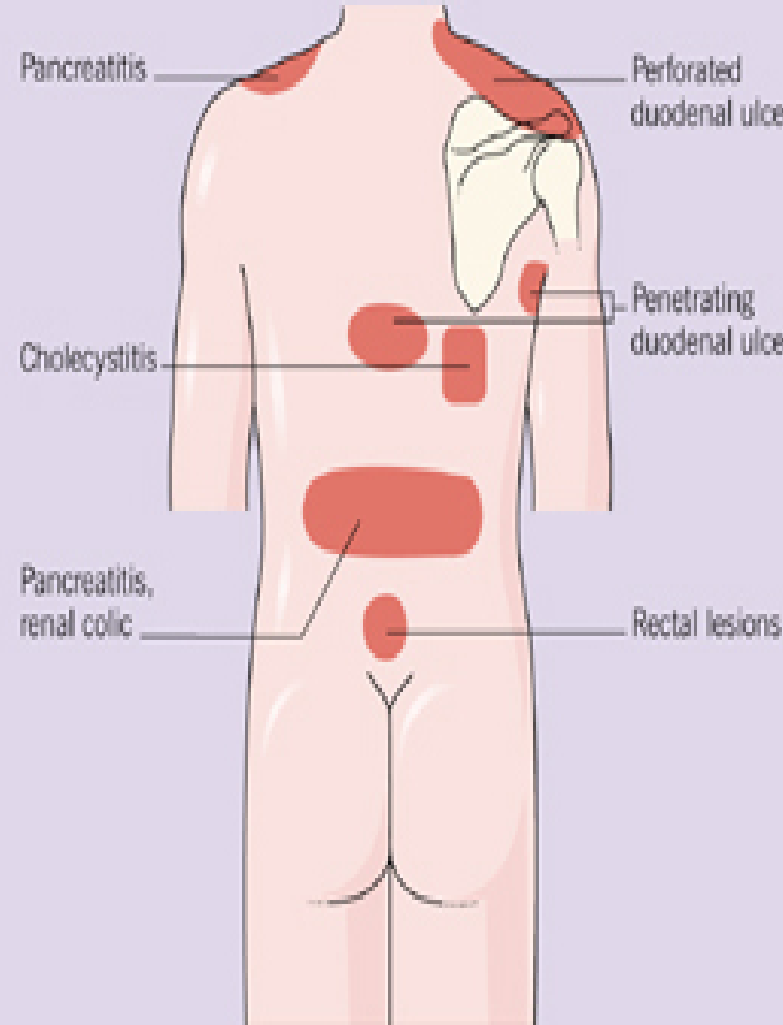
- Onset
- Location
- Character
- Radiation
- Intensity
- Hours to Days
- Periumblical
- Crampy
- None
- 3/5

LOCATIONS FOR ACUTE ABDOMINAL PAIN CAUSED BY DIFFERENT CONDITIONS

Anterior locations



Posterior locations



History

- Nausea and vomiting
- Bowel function
- Past history
- Drugs

Physical signs

- Vital signs
 - pulse
 - respiratory rate
 - temperature
 - blood pressure
- General Inspection
 - Position of patient
 - Pallor and sweating
 - Facies abdominalis

Physical Signs

- **Abdominal examination**
 - **Inspection**
 - scars
 - shape
 - peristaltic waves
 - movement with respiration
 - **Palpation**
 - pointing test
 - muscle guarding and rigidity
 - tenderness and rebound tenderness
 - organomegally
 - hernial orifices
 - **Percussion**
 - **Auscultation**
 - **P/R and V/E**

Investigations

- **Laboratory**

- **FBC**

- **Urinalysis**

- **Lipase and amylase**

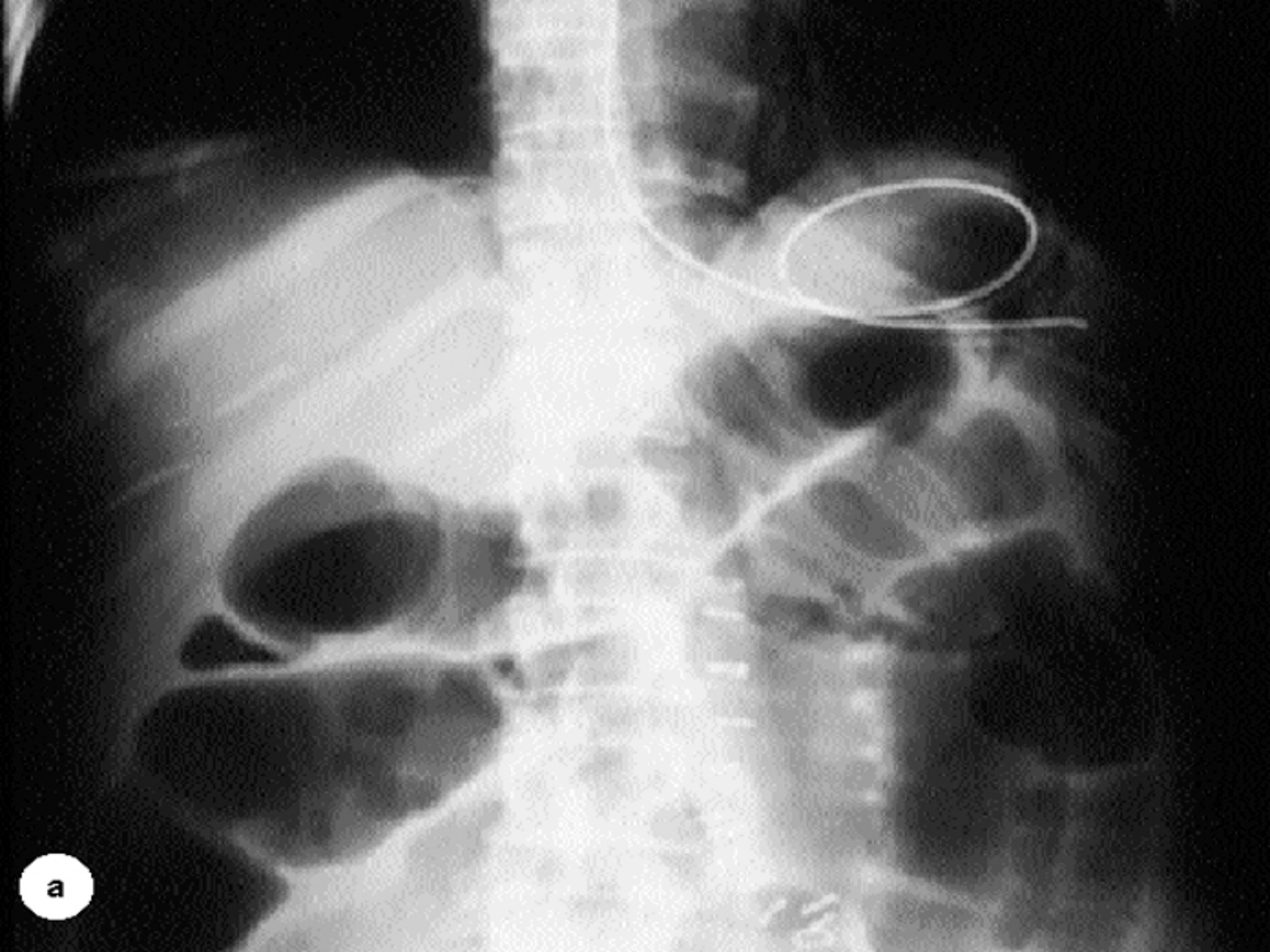
- **Sickling test**

- **Urea and electrolytes**

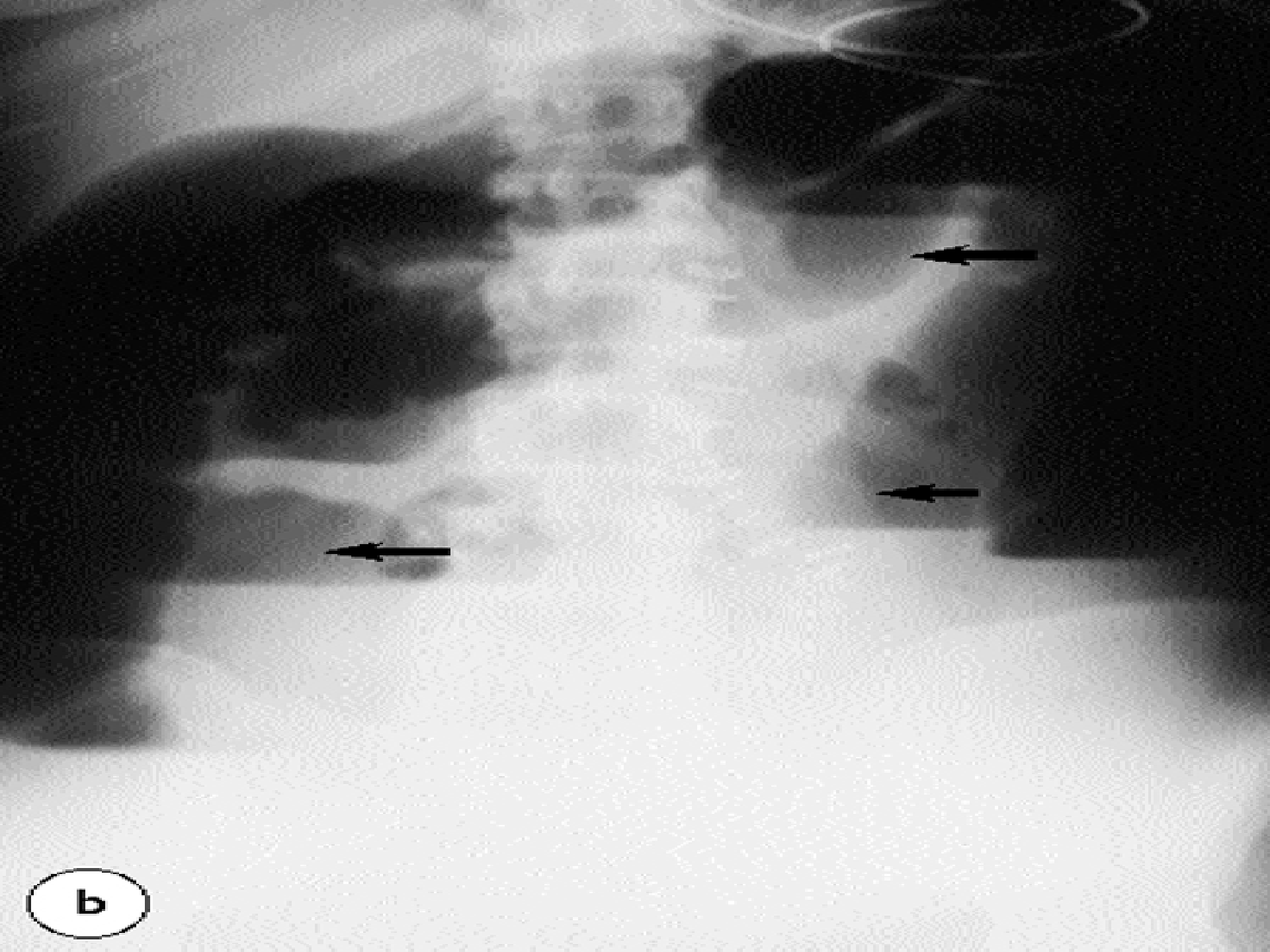
- **Radiology**

- **Erect and supine abdominal x-rays**

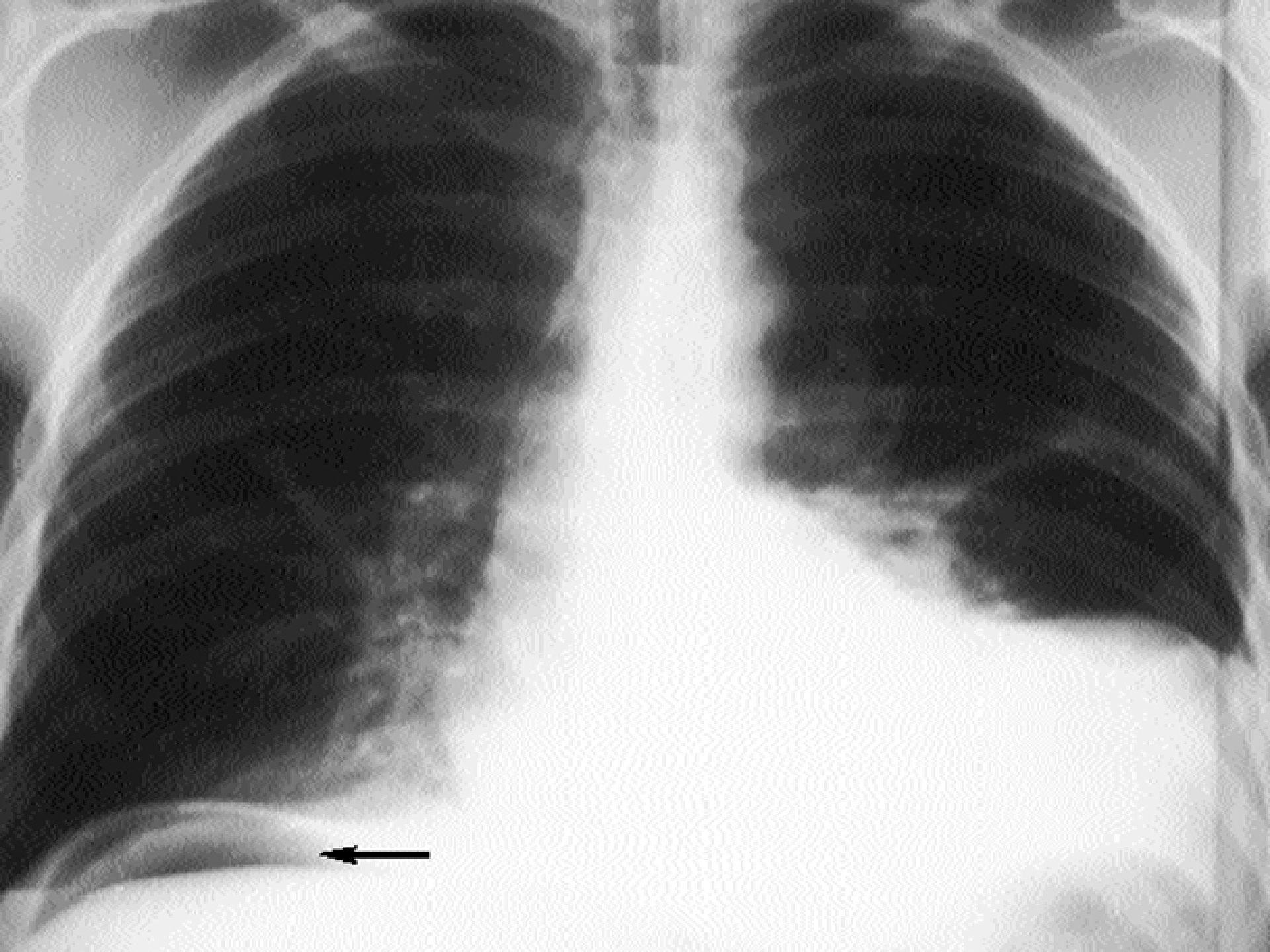
- **Chest x-ray**



a

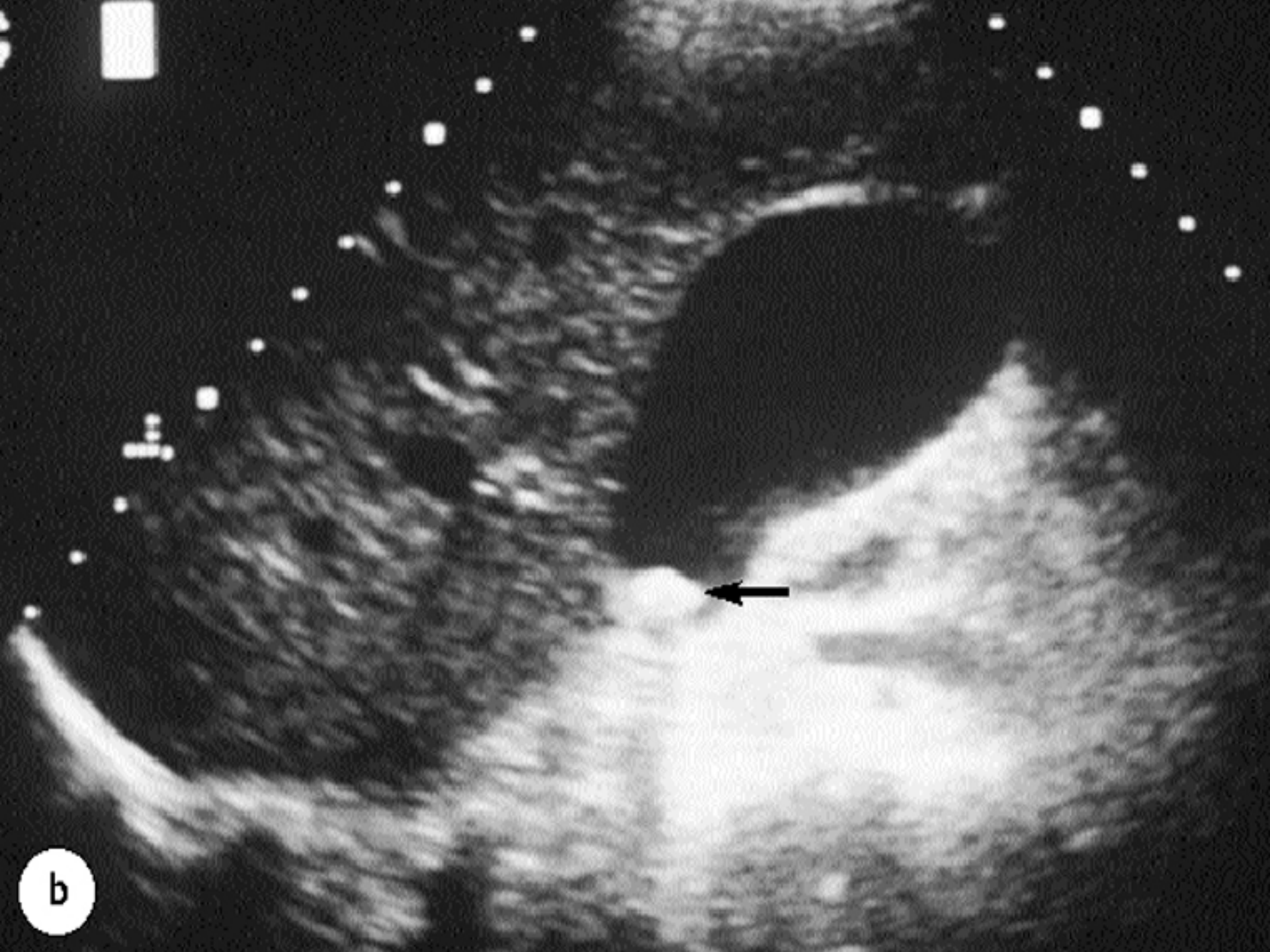


b



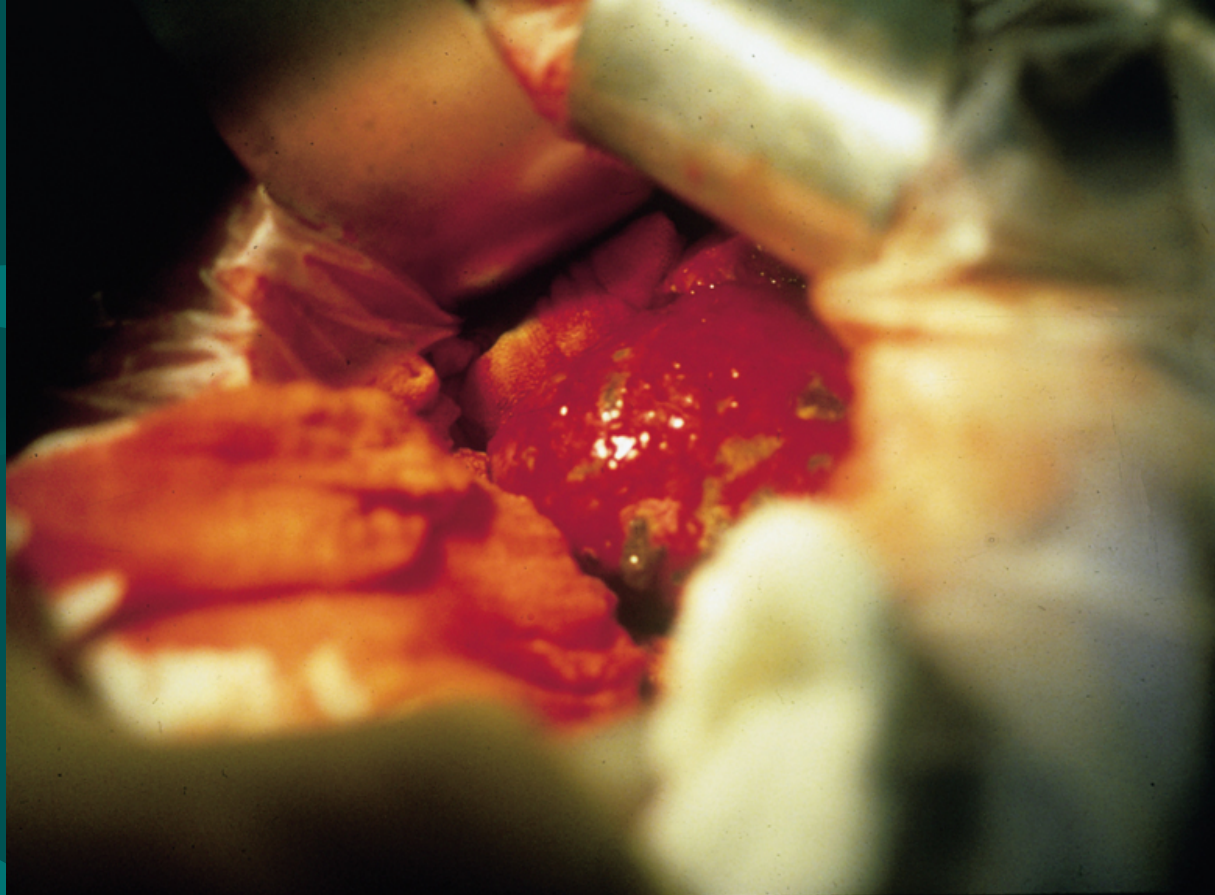
Investigations

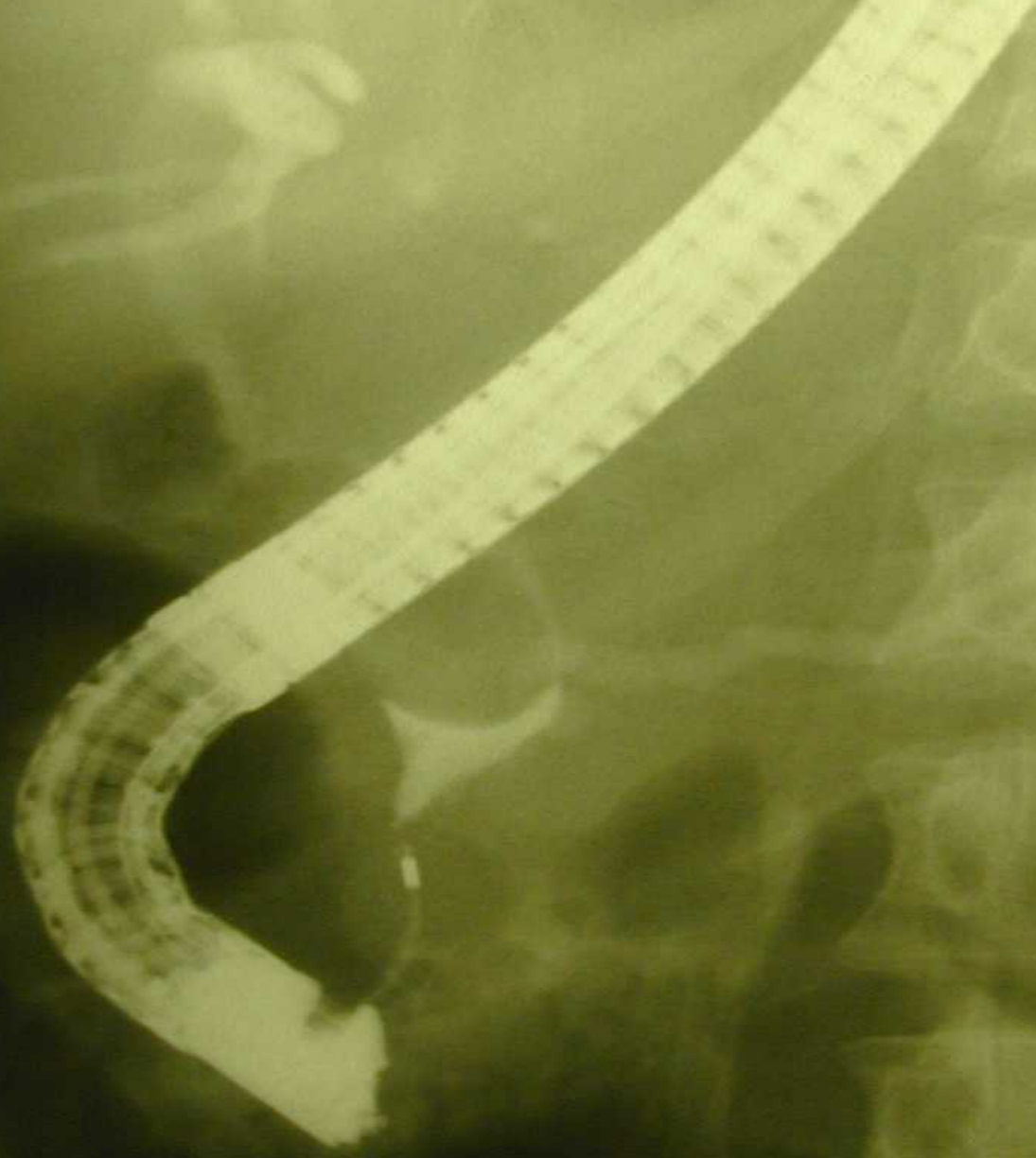
- **Ultrasonography**
- **Laparoscopy**
- **Diagnostic
Laparotomy**



b

Acute Cholecystitis







26P R11

Peritonitis

- General infective symptoms
 - Fever
 - Leucocytosis
- Local infection signs in abdomen
 - Guarding
 - Tenderness





Conclusion

- **Attention to detail and clarity of thought**
- **Management may depend on clinical skills only**
- **Of every 5 patients admitted to hospital with acute abdomen:**
 - **one has diagnosis changed**
 - **two are discharged without being told cause of their pain**