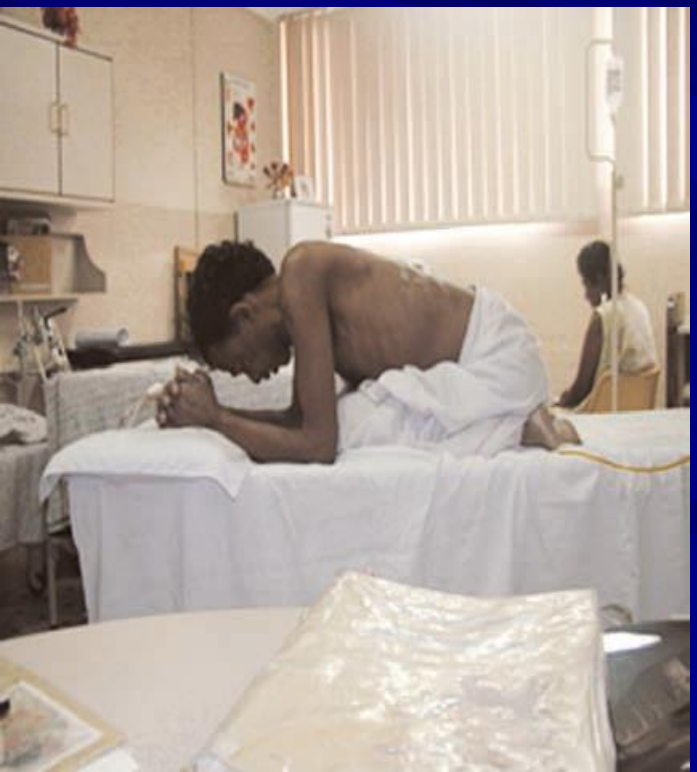
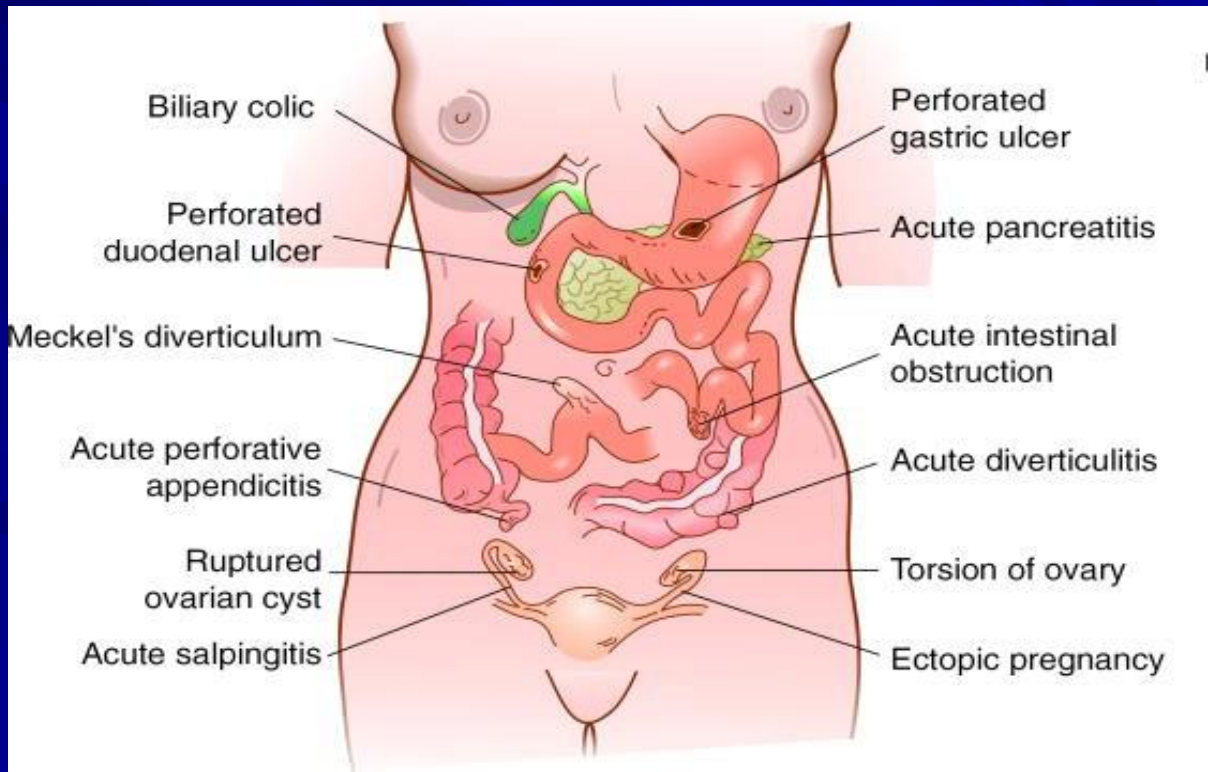
ACUTE ABDOMEN Lec.No.11

A s. & s. of abdominal pain & tenderness that often requires as early surgical decision making as possible.

-The need for prompt early diagnosis and early treatment, not necessarily always surgical.

Dr.Kasim Obaid





SURGICAL ACUTE ABDOMEN

INFECTIONS

Acute appendicitis

Acute cholecystitis

Meckel's diverticulitis

Hepatic abscess

Diverticular abscess

Psoas abscess

PERFORATION

Traumatic / non traumatic:

Perforated DU

Perforated GI cancer

Boerhaave syndrome

Perforated diverticulum

OBSTRUCTION

Adhesions

Sigmoid volvulous

Caecal volvulous

Incarcerated hernia

IBD

G I cancer

intussusception

HAEMORHAGE

Traumatic / non traumatic

leaking or ruptured aneurysm

ectopic pregnancy

bleeding GI diverticulum

bleeding DU

AV malformations of GIT

hemorhagic pancreatitis

aorto duodenal fistula

Mallory Weiss syndrome

spontaneous rupture of spleen

ISCHAEMIA

Buerger disease
mesenteric thrombosis or embolism
ischaemic colitis
testicular tortion
strangulated hernia
ovarian tortion

NON SURGICAL CAUSES

ENODOCRINE &METABOLIC DISEASES

Uraemia

DKA

Addisonian crisis

HAEMATOLOGICAL

SCA

Acute leukemia

TOXINS&DRUGS

Lead poisoning

Heavy metal poisoning

Narcotic withrdawal

Black widow spider poisoning

TYPES OF ABDOMINAL PAIN

- VISCERAL is vague,poorly localised ,usually due to distension of hollow organs
- Foregut-epigastric
- Midgut –peri umbilical
- Hindgut -hypogasterium

- **PARIETAL** PAIN corresponds to segmental nerve roots supplying peritoneum and tends to be sharper and more localized
- **REFFERED** PAIN –is perceived at site distant from source of stimulus

e.g. irritation of diaphragm cause pain in shoulders due to acute cholecystitis.

PERITONITIS

- Is inflammation of peritoneum from any cause present with severe tenderness with/without rebound tenderness & guarding; is usually secondary to inflammatory insult, most often gram –ve with enteric organism & anaerobes
- Primary peritonitis usually occurs in children due to pneumococci & haemolytic strept.

HISTORY OF PAIN

- Onset and duration
- Character
- Site
- Severity
- Radiation
- Relieving and agravatig facters
- Associated symptoms

PAST HISTORY

- Previous illnesses ,previous surgery
- History of medications e.g. narcotics ,NSAID ,immunosuppressive drugs , anticoagulant, alcohol
- Gynaecological history
- Family history
- Social history

PHYSICAL EXAMINATIONS

- GENERAL
- LOCAL (ABDOMINAL) –inspection for scars, movement with respirations, scaphoid or distended, localised swellings, hernial orifices
- Auscultations for BS, any bruit
- Percussion for gaseous distention of bowel, presence of peritoneal irritation, degree of ascites

- PALPATION (superficial & deep)

1. Severity and exact location of pain
2. Organomegaly
3. Abdominal masses
4. Involuntary guarding
5. Tenderness
6. Rebound tenderness

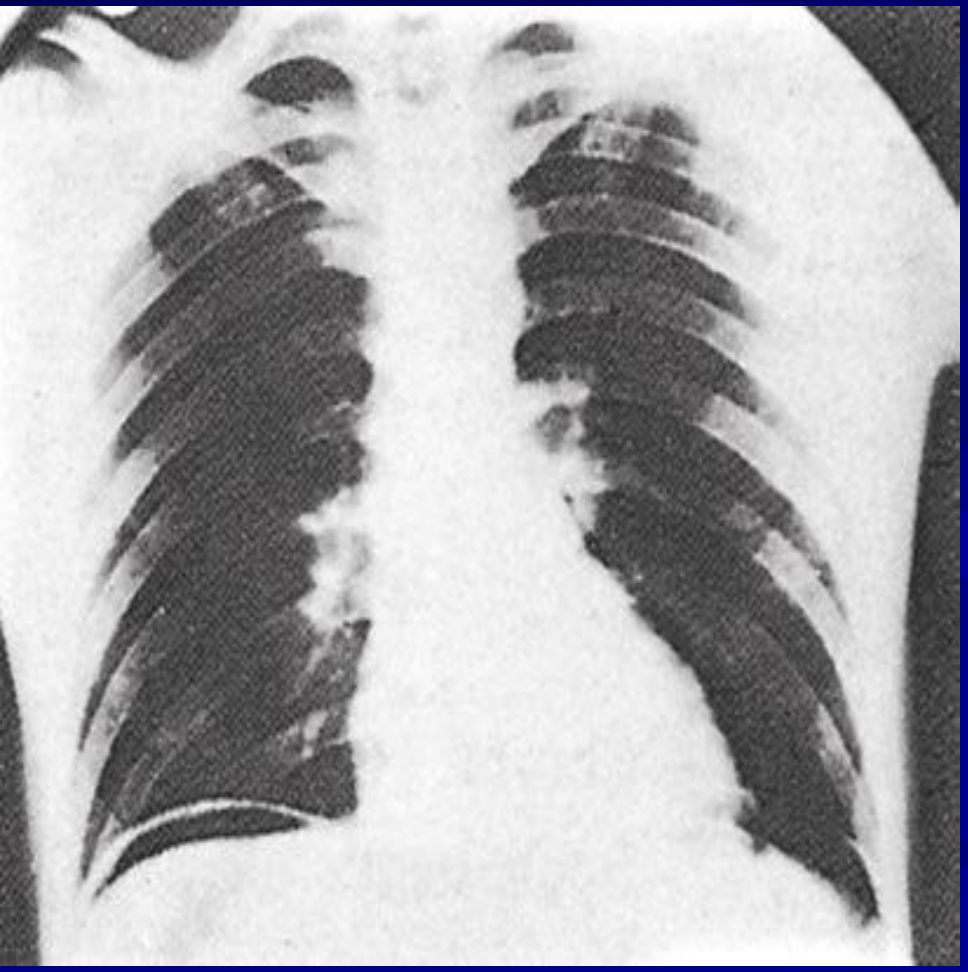
LAPAROTARY INVESTIGATIONS

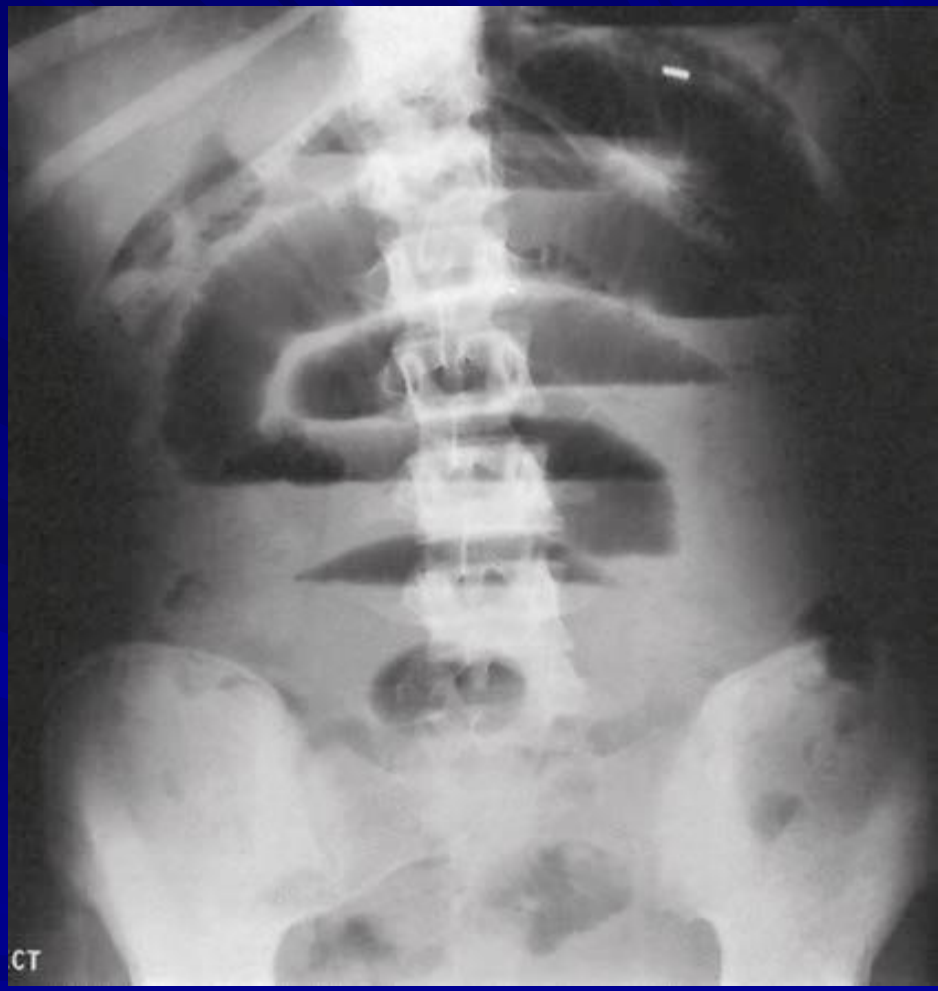
1. HB,WBC,diff.count
2. BU,SC,RBS,electrolytes
3. GUE
4. S.amylase,lipase
5. LFT
6. S.lactate,b.gas analysis
7. GSE
8. C.difficile toxin, culture

IMAGING STUDY

- PLAIN FILMS

1. Air under diaphragm in CXR
2. Opaque calcification -5%in a.a.,10%in GStones,90%in renal stone
3. Erect & supine for i.obstruction, gastric outlet obtruction, sigmoid volvolous




CT

ABDOMINAL US

- First choise for biliary dis.
- Renal stones
- Abd.& transvaginal for ovary, uterus, adnexia
- Intraperitoneal fluid
- Limitations are presence of abnormal amount of gas, obesity, previous upper surgery, need experience

CT SCAN

- First choice. In most centers esp.in diag. of a.a. in young women & tumour or ischaemia in elderly
- Ct with oral, rectal or i.v.contrast is highly accurate in diag. of a.a.
- C.t can diffr. bet. Mechanical obstr. &paralitic ileus &can identify transition point
- Ct can dx mesenteric thrombus or embolism

DIAGNOSTIC LAPAROSCOPY

1. High s & s
2. Treatment of no. of cond. Cause a.abd.
3. Low m & m
4. Less hospital stay
5. Less cost
6. Helpful in critically intensive care patient if laparotomy is risky

SEAT BELT INJURY

Pneumoperitoneum

Compressive abdominal trauma

Hemoperitoneum

Abdominal policeman

Abdominal compartment syndrome

Tangential injury

Celiotomy

Which of the following is a contraindication to a trial of non-operative management in liver injury?

A. Pediatric patient

B. Grade IV injury

C. Elderly patient

D. Peritonitis

E. Penetrating mechanism

A 34-year-old man is hypotensive after a motorcycle crash. His abdomen is non-tender, his pelvis is unstable, and x-ray demonstrates a severe open book fracture. After receiving 2 L of ringers lactate he is still hypotensive. What is the most immediate next step in management?

A. CT of abdomen and pelvis with IV contrast

B. Application of a pelvic binder

C. Angiography

D. Exploratory laparotomy

E. Continue IFV/blood replacement

A patient sustains a liver injury with a blush noted on CT scan as well as a posterior knee dislocation after a motor vehicle crash. Which of the following is the next best step in management?

A. Angiography

B. Operative repair of the dislocated knee

C. Repeat CT scan of the abdomen

D. Placement of a traction pin to reduce the knee dislocation

E. Laparotomy

A patient presents after high speed motorcycle crash. Pelvis x-ray reveals bilateral pubic rami fractures and there is blood at the urethral meatus, which of the following should be the next step in management?

A. Retrograde urethrogram

B. CT cystogram

C. Intravenous pyelogram

D. Diagnostic peritoneal lavage

E. CT of the bony pelvis

The most likely indication for urgent laparotomy in multi injured patient is

A. Splenic injury
B. Liver injury
C. Evisceration
D. Fresh bleeding per rectum
E. Hemodynamic instability

Acute abdominal distension due to obstructed small bowel is managed by

A.NGT, IVF, Foley's catheterisation

B.IVF, pain killer, Foley's c., Abs

C.NGT, Foley's c., IVF, follow up chart.

D.IVF, Abs and Follow up chart

E.Surgical intervention

Which of the following is a contraindication to non operative management of splenic injury?

A. Concomitant liver injury
B. Peritionitis
C. Hemoperitoneum
D. Blush on CT scan
E. Concomitant pelvic fracture

Regarding seat belt signs on the abdomen which of the following statements is false?

A. They are associated with increased mortality

B. They are associated with lumbar spine fractures

C. They are associated with pancreatic injury

D. They are associated with duodenal injuries

E. They are associated with mesenteric injuries

Following splenectomy for trauma, vaccinations should be sure to include which of the following organisms?

A Enterobacter aerogenes

B Haemophilus influenzae

C Staphylococcus aureus

D Klebsiella pneumonia

E Pseudomonas aeruginosa

Which is more dangerous condition?

Haemoperitoneum OR Pneumoperitoneum?

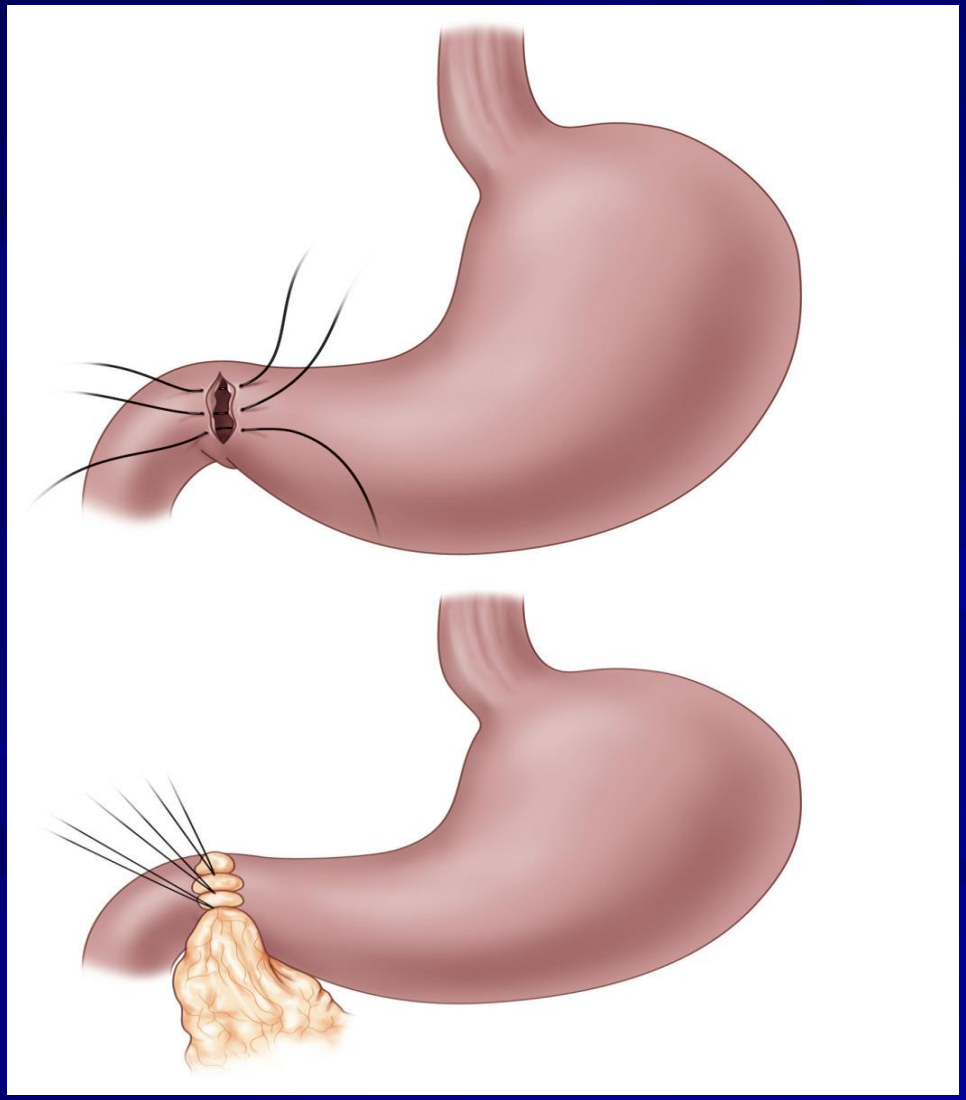
why?

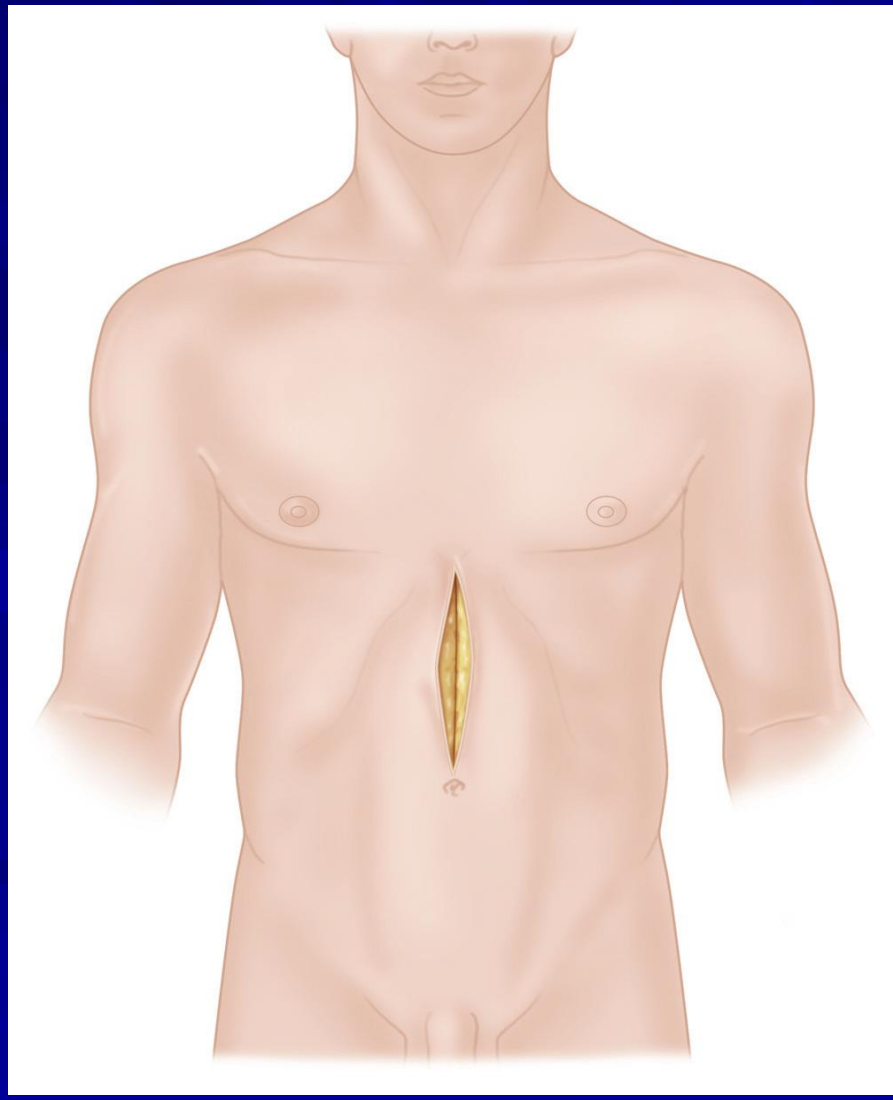
A patient diagnosed radiologically as acute abdomen due to perforated viscus as he was presented with rigid abdomen and unstability.

After a short time patient started to feel better than before, abdomen softer moving with respiration with clinical shifting towards stability that made the surgeon treating him non operatively.

Explain how does this happen?

Describe presentation, investigations and operation needed





A fecolith noted inside the peritoneal cavity during appendectomy

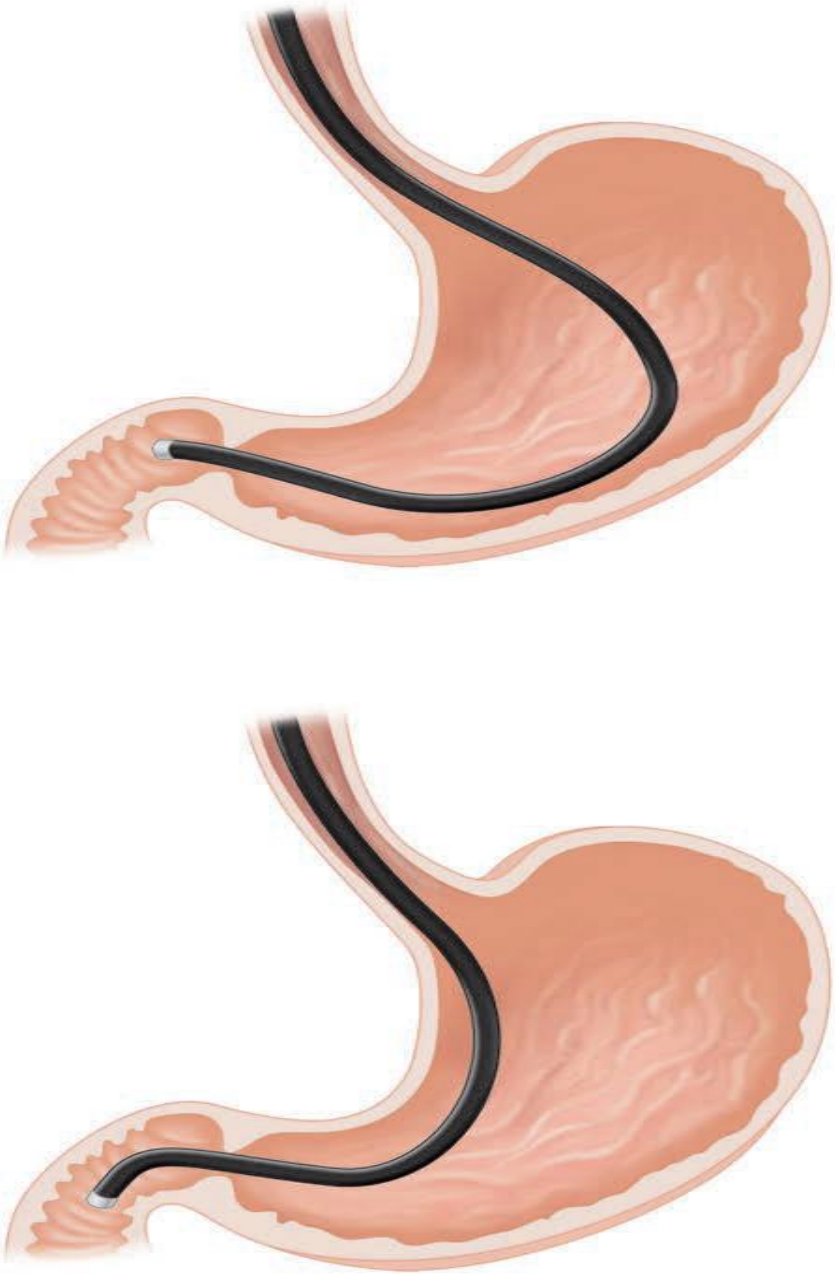
Clarify the clinical manifestation, investigational data and surgical access

During appendectomy

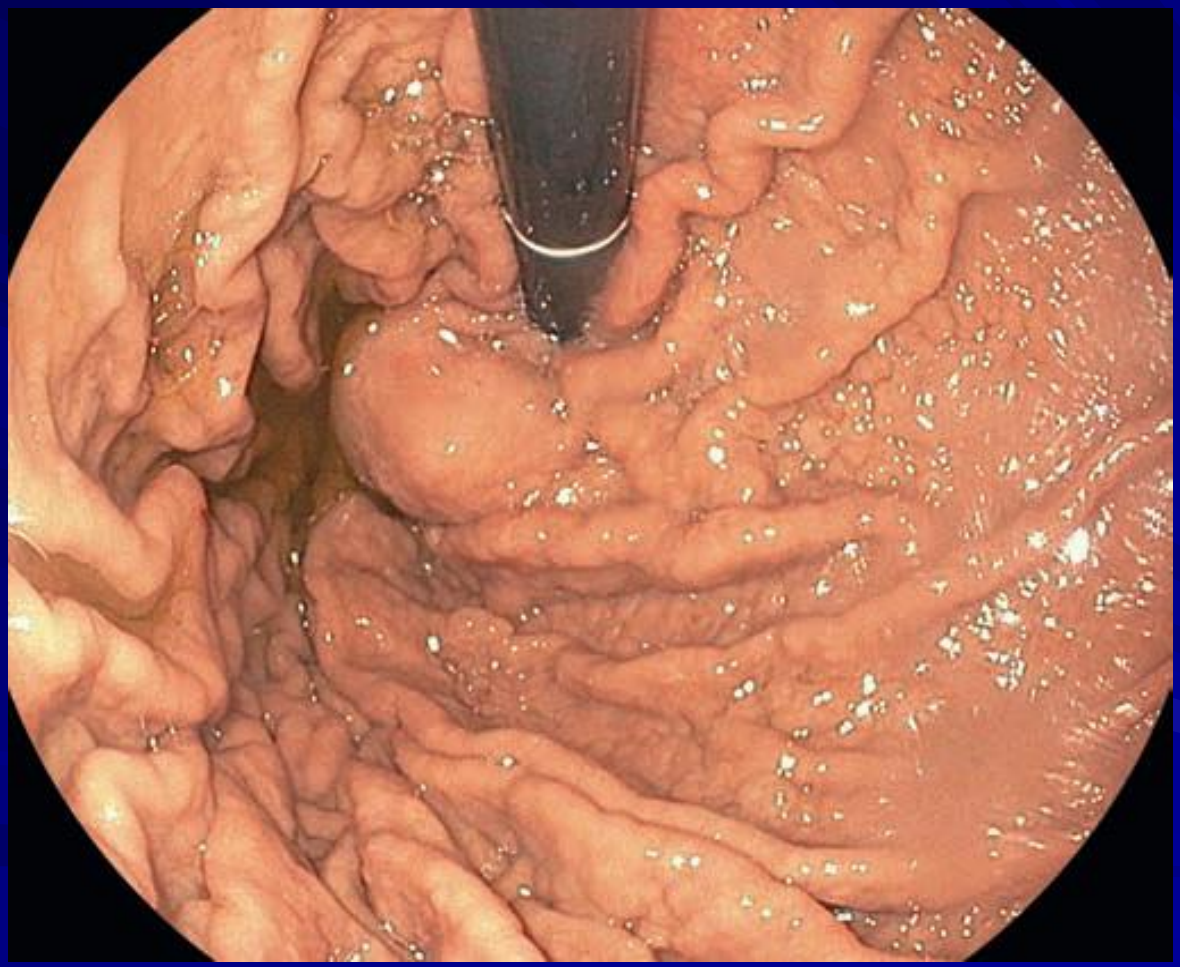
A greenish fluid collection noted at right lower abdominal cavity at appendicular area with normal healthy looking appendix.

What is the next intraoperative step?

Describe



Where is the scope and why



Describe

[psychologically ill girl]