The Peritoneum
(lecture 3)

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https://www.slideshare.net/MehulTandel/peritoneum-dr-mehul-tandel

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SPECIAL REGIONS OF THE PERITONEAL CAVITY

- **Parts of peritoneal cavity**: Abdomen proper and Pelvic cavity
- **Abdominal cavity is divided into**: Supracolic and Infracolic compartments
- **Subdivisions of supracolic compartment**: Number of subphrenic spaces
- **Subdivisions of infracolic compartment**: Right and left parts
- **Paracolic gutters**: Right and left
Supracolic Compartment

Transverse Mesocolon
(part of the greater omentum)

Root of Mesentary of the Small Intestine

Right Paracolic Gutter

Left Paracolic Gutter

Right Infracolic Compartment

Left Infracolic Compartment

Infracolic Compartment

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https://teachmeanatomy.info/abdomen/areas/peritoneal-cavity/
Supracolic Compartment/Subphrenic Spaces Classification

The **intraperitoneal spaces** are:
1. The left anterior space (left subphrenic space)
2. The left posterior space (left subhepatic or lesser sac)
3. The right anterior space (right subphrenic space)
4. The right posterior space (right subhepatic or Morrison’s pouch)

The **extraperitoneal spaces** are:
1. The right extraperitoneal space
2. The left extraperitoneal space
3. Midline extraperitoneal space (bare area of liver)
(a) Subphrenic spaces and (b) subphrenic spaces shown in relation to the transverse colon
Hepatorenal Pouch (Morrison’s Pouch)

**Boundaries:**

**Anteriorly**
- The inferior surface of the right lobe of the liver.
- The gallbladder.

**Posteriorly**
- The right suprarenal gland
- The upper part of the right kidney
- The second part of the duodenum
- The hepatic flexure of the colon
- The transverse mesocolon
- A part of the head of the pancreas
- **Superiorly:** The inferior layer of the coronary ligament
- **Inferiorly:** It opens into the general peritoneal cavity
- **Left:** Communicate with omental bursa
- **Right:** Limited by diaphragm
Infracolic Compartments

- Right Infracolic Compartment
- Left Infracolic Compartment

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Paracolic gutters
Rectouterine Pouch (Pouch of Douglas)

Boundaries:

- Anteriorly: uterus and posterior fornix of vagina
- Posteriorly: rectum
- Inferiorly (floor): rectovaginal fold of peritoneum
Morrison’s or hepatorenal pouch with rectouterine or Douglas pouch
Peritoneal abscess

• Hepato-renal space
  – m.c. site for subphrenic abscess
    • In supine position

• Recto-uterine pouch or recto-vesical pouch
  • In Fowler’s position (45° angle)
Sites of intraperitoneal subphrenic & subhepatic abscesses
Peritoneal Fossae (Recesses)

- Small pockets of peritoneal cavity enclosed by small, inconstant folds of peritoneum.
- Commonly occur at transitional zones between the absorbed and unabsorbed parts of mesentery.
- Best observed in fetuses, mostly obliterated in adults.
- Sometimes they persist to form potential sites for internal hernia and strangulation.
Classification

• Lesser Sac

• Duodenal Fossae or Recesses

• Caecal Fossae

• Intersigmoid Recess
Duodenal Fossae or Recesses

- The superior duodenal recess
- The inferior duodenal recess
- The paraduodenal recess
- The retroduodenal recess
- The duodenojejunal or mesocolic recess
- The mesentericoparietal fossa of Waldeyer
Caecal Fossae

- The superior ileocaecal recess
- The inferior ileocaecal recess
- The retrocaecal recess
The Intersigmoid Recess
CLINICAL ANATOMY

• **Internal hernia:** May occur in the opening of lesser sac. It may also occur in between paraduodenal recesses. One has to remember the inferior mesenteric vein in the paraduodenal fold during reduction of the hernia.

• Pain of foregut derived structures is felt in the epigastric area.

• Pain of midgut derived structures is felt in the periumbilical area.

• Pain of hindgut derived structures is felt in the suprapubic area.
Internal abdominal hernia

Occasionally a loop of intestine may enter into the peritoneal pouch or recesses and gets strangulated
Referred pain from the gut-derived structures
THANKYOU