

ABDOMEN

- 1)ANTERIOR ABDOMINAL WALL
- 2)DIFFERENT QUADRANTS OF ABDOMEN
- 3)PERITONEUM
- 4)ABDOMINAL ORGANS...

ANTERIOR ABDOMINAL WALL

- It extends from the xiphoid process to the pubic symphysis.
- The superolateral margins are formed by the rt and lt costal margins i.e 7,8,9 and10 costal cartilage.
- It consist of skin,superficial fascia containing cutaneous nerves,arteries,veins and lymphatics and muscles.

MUSCLES OF ABDOMEN

- On either side of the midline,there are four large muscles
 - External oblique
 - Internal oblique
 - Transversus abdominis and
 - Rectus abdominis.
- Two small muscles,the cremaster and pyramidalis are also present.

- These are the large flat muscles placed in the anterolateral part of the abdominal wall. Each of them ends in an extensive aponeurosis that reaches the midline where they decussate to form a median band called LINEA ALBA.
 - It has a clinical significance....
 - 1)Divarication of recti
 - 2)epigastric hernia
- Others- Incisional hernia
umbilical hernia

NINE REGIONS OF THE ABDOMEN

- The abdomen is divided into 9 regions by four imaginary lines:
 - Transpyloric plane of addison
 - Transtubercular
 - The rt and lt lateral planes
- The 9 regions are arranged in three vertical zones,median ,rt and lt.
- From above downwards,the median regions are epigastric,umbilical and hypogastric.The rt and lt regions in the same order are hypochondriac,lumbar and iliac.

PERITONEUM

- It is a large serous membrane lining the abdominal cavity.
- It is divided into outer(parietal) layer and an inner(visceral) layer.
- There are different forms of peritoneal folds:
 - Many organs within the abd are suspended by folds of peritoneum and these organs are mobile.
 - Some rest directly on the posterior abd wall and are covered by peritoneum on one side and are called retroperitoneal.
- -The fold suspending the small intestine is called mesentry.
- -The fold suspending part of colon is called mesocolon.
- -Large peritoneal folds attached to stomach is called omentum.
- -Peritoneum connecting organ to abd wall or to each other are called ligaments.

• FUNCTIONS OF PERITONEUM

- Movement of viscera
- protection of viscera
- Absorbtion of fluid
- Healing power and adhesion
- Storage of fat

Clinical importance of peritoneum.....

THE LIVER

- The liver is a large wedge shaped solid gland situated in the rt upper quadrant of the abdominal cavity.
- It occupies the whole of the rt hypochondrium, the greater part of epigastrium and extends into the lt hypochondrium.
- Wt-1.5 kg
- It has 5 surfaces:anterior,superior,inferior,posterior and rt lateral.The inferior surface is well defined by a sharp inferior border which we felt during palpation of the liver.
- The liver is divided into 2 lobes:
 - rt lobe
 - lt lobe

The liver receives 20% of its blood supply through hepatic artery and 80% through portal vein.

GALL BLADDER

- The biliary apparatus consists of:
 - The rt and lt hepatic ducts
 - The common hepatic duct
 - The gallbladder
 - The cystic duct
 - The bile duct
- Gall bladder is a pear shaped organ present in the rt hypochondrium on the inferior surface of the liver,situated in the gall bladder fossa.
- Length of the GB-8-12 cm.
- The parts of the GB are fundus,body and neck.
- The GB is supplied by Cystic artery which is a branch of rt hepatic artery. Cystic atery is an end artery.
- Importnce Of Calots triangle.....

STOMACH

- The stomach is a muscular bag forming the widest and most distensible part of the digestive tube.
- It lies obliquely in the upper and left part of the abdomen,occupying epigastric,umbilical and lt hypochondriac region.
- The capacity of the stomach is about 1.5-2 lts.
- Parts of the stomach:
 - 1)Cardiac and
 - 2)Pyloric
- Arteries supplying the stomach are lt gastric artery,rt gastric artery,rt gastroepiploic artery,lt gastroepiploic artery and 5-7 short gastric arteries.

INTESTINES

- Divided into small and large intestines.
- SMALL INTESTINE
 - extends from the pylorus to the ileocaecal junction.
 - its about 6m long.
 - Divided into upper fixed part called duodenum and the lower mobile part i.e jejunum and ileum.
- Main function is digestion and absorbtion. Absorbtion is because of large surface area and digestion is mainly by the digestive engymes and mucus(crypts of lieberkuhn and brunner gland of duodenum).
- The nerve supply of the small intestine is sympathetic(T9-T11) as well as parasympathetic(vagus),both of which passes through the coeliac and superior mesenteric plexus.

DUODENUM

- The duodenum is the shortest,widest and most fixed part of the small intestine.
- It is about 10 inches long and lies opposite the vertebrae L1,L2 and L3 vrtebrae.
- It is divided into 4 parts:
 - 1)The first(superior) part-2 inch
 - 2)The 2nd(descending)-3 inch
 - 3)The 3rd(horizontal)-4 inch and
 - 4)The 4th(ascending)-1 inch.
- The duodenum is supplied by the superior pancreatico duodenal artery and inferior pancreaticoduodenal artery.

JEJUNUM AND ILEUM

- The jejunum and ileum are suspended from the posterior abdominal wall by the mesentery and therefore enjoy considerable mobility.
- The jejunum constitutes the upper $2/5^{\text{th}}$ of the mobile part of the small intestine, while the ileum constitutes the lower $3/5^{\text{th}}$.
- The jejunum begins at the duodenojejunal flexure and the ileum terminates at the ileocaecal junction.
- They are supplied by the branches from the superior mesenteric artery.