MECKEL'S DIVERTICULUM

- This is the persistent proximal part of the vitellointestinal duct which is present in the embryo,and which normally disappears during the 6th week of intrauterine life.
- It is present in 2% of the cases,2 inches long,2 feet proximal to the iliocaecal valve in the antimesenteric border.
- The apex of the diverticulum may be free or may be attached to the umbilicus or to the mesentry or any abdominal organs by a fibrous band. Contractions of this band sometimes lead to intestinal obstruction.
- Acute inflammation of the diverticulum may produce symptoms that resemble that of appendicitis.

LARGE INTESTINE

- It extends from the ileocaecal junction to the anus.
- It is about 1.5 m long.
- Different parts of large intestine are:
  - -Caecum
  - -The ascending colon
  - -The transverse colon
  - -The descending colon
  - -The sigmoid colon,the rectum and the anal canal.
- In the angle between the caecum and the terminal part of the ilium,there is a narrow diverticulum called the verfiform appendix.
- The greater part of the large intestine is fixed except for the appendix,the transverse colon and the sigmoid colon.

VERMIFORM APPENDIX

- This is a worm like diverticulum arising from the posteromedial wall of the caecum about 2 cm below the iliocaecal orifice.
- It is 10cm long,may vary from 3-30 cm in length.
- Different positions of appendix:
  - -retrocaecal(12 o'clock)
  - -pelvic(4o'clock)-20%
  - -preileal and postileal
  - -subcaecal
  - -paracaecal
- The appendix is suspended by the small fold of peritoneum called mesoappendix.
- The appendicular orifice is occasionally guarded by an indistinct semilunar fold of mucous membrane,known as a valve of Gerlach.
- Appendix is supplied by appendicular artery and accessory appendicular artery.Veins follow the artery and end in the superior mesenteric vein which finally drain into portal vein.
- Clinical importance: Appendicitis,McBurney's point,Alvarado scoring system…

- Ascending colon:it is about 5 inches long and extends from the caecum to the inferior surface of the liver.Here it bends to the left to form the rt colic flexure.Usually it is retroperitoneal.
- Right colic flexure:it lies at the junction of the ascendig colon and transverse colon.Here it bends forwards,downwards and to the left.
- Transverse colon:It is about 20 inches long and extend across the abdomen from the rt colic flexure to the lt colic flexure.It is not transverse but hangs down as a loop to a variable extent.It is suspended by a transverse mesocolon and has a wide range of mobility.
- Spenic flexure:This flexure lies at the junction of the transverse colon.Here the colon bends downwards and backwards.The flexure is attached to the 11th rib(in the midaxillary line) by a horizontal fold of peritoneum.called the phrenicocolic ligament.

- Descending colon:It is about 10 inches long and extend from the lt colic flexure to the sigmoid colon.It runs verticallyupto the iliac crest and then inclines medially on the iliacus and psoas major to the pelvic bream where it is continous with the sigmoid colon.Usually it is retroperitoneal.
- Sigmoid colon:It is about 15 inches long and extends from the pelvic brim to the 3rd piece of the sacrum.It is suspended by the sigmoid mesocolon and is covered by the coils of small intestine.
- BLOOD SUPPLY OF THE LARGE INTESTINE:

  -Marginal artery which is formed by the fusion of iliocolic,rt colic,middle colic,lt colic and sigmoid arteries.

THE RECTUM

- It is the distal part of the large gut,placed between the sigmoid colon above and the anal canal below.It is situated in the posterior part of the lesser pelvis,in front of the lower 3 pieces of the sacrum and the coccyx.
- The rectum ends by becoming continous with the anal canal at the anorectal junction which lies 2-3 cm in front of and a little below the tip of the coccyx.
- It is 12 cm long.In the upper part,it has the same diameter as that of sigmoid colon but in the lower part it is dilated to form the rectal ampulla.
- It is supplied by superior rectal artery which is a continuation of inferior mesenteric artery,middle rectal artery and median sacral artery.

THE ANAL CANAL

- The anal canal is the terminal part of the large intestine.
- It extends from the anorectal junction to the anus.
- It is 3.8 cm long
- The interior of the canal is divided into:
  - -upper part(mucous)
  - -middle part(transitional)
  - -lower part(cutaneous)
- Anal sphinctures…
- The part of the anal canal above the pectinate line is supplied by the superior rectal artery and the part below it is supplied by inferior rectal artery.
- Clinical importance……