Diverticular disease of the colon.
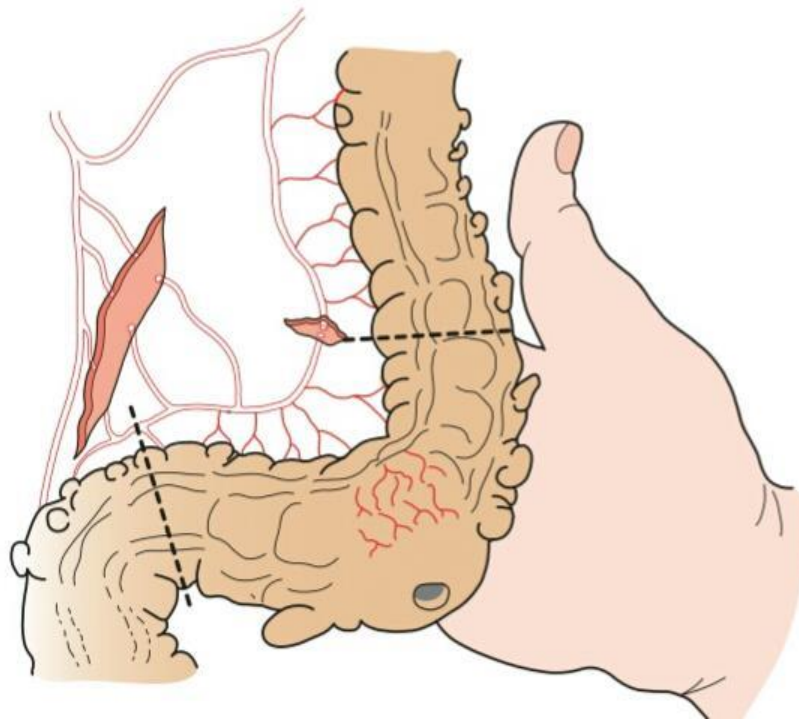
Incidence

- Common in the elderly.

- 90% occurs in the sigmoid colon. Other sites can be affected.

  Ex – Caecum.

- Acquired diverticular – lacks a proper muscle coat.
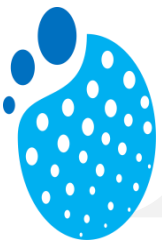
Incidence

- This is not a pre cancerous condition . But cancer can coexist. (12%)

- In south east Asia, right sided diverticular disease is more common.

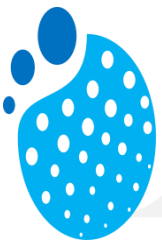- This condition is most oftenly asymptomatic and incidentally.

Pathophysiology

- Diverticular (hollow out – pouchings) are a common structural abnormality.

- Can classified as , 1. Congenital

.   2. Acquired

- In congenital condition, all 3 coats of the bowel are present in the wall of the diverticulum.

Pathophysiology

- In acquired condition, there are no muscularis layer present in the diverticulum.

- Ex – sigmoid diverticular disease.

- Diverticular are found 75% over 70 years old in the western world.

- This condition is overwhelmingly present in the sigmoid colon.

Aetiology

- Reduced fiber content in the diet is a main causative factor.

- Epidemiological studies indicate that diverticular disease is a consequence of refined western diet.

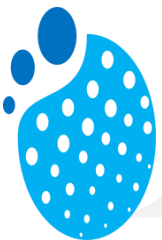- The combination of altered collagen also affect into this.

Aetiology contd.

- With the above mentioned factors , when the intraluminal pressure is increased, most probably due to the narrowing of sigmoid colon results herniation of mucosa through the circular muscles at the point where blood vessels penetrate the the bowel wall.

Complications

1. Diverticulitis
2. Pericolic abscess
3. Peritonitis
4. Intestinal obstruction due to fibrosis.
5. Haemorrhage.
6. Fistula formation.

Complications

- Pain and inflammation is due to diverticulitis.

- Perforation can lead to pericolic abscess formation, but occasionally can leading to generalized peritonitis.

Complications

- Haemorrhage can results in diverticular disease as profuse or recurrent, colonic haemorrhage due to erosion of the blood vessels.

- 5% of cases ended to form fistula,more commonly colovesical fistula.

Clinical features

Emergency -
1. Persistent lower abdominal pain.
2. Fever, Malaise, leukocytosis.
3. Tender, thickened sigmoid colon.
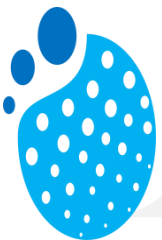4. Tender mass in DRE.
5. Features of fistula.

Clinical features

Elective -
1. Features of IBS
(Distention, Flatulence, Heaviness)

2. Saint's triad
(Diverticulitis, gall stones, Hiatus hernia)

Investigations

1. FBC
2. Barium enema (saw teeth appearance)
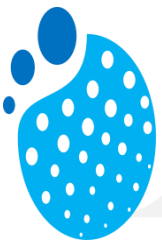3. Sigmoidoscopy
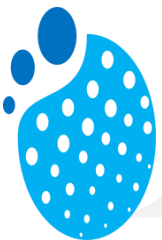4. Colonoscopy
5. Biopsy in equivocal Cases.

Radiology

- Plain radiographs can demonstrate a pneumoperitoneum.

- Spiral CT has excellent sensitivity and specificity for identifying the bowel wall thickening, Abscess formation and extraluminal disease.

Colonoscopy

- Endoscopy demonstrate the necks of the diverticular within the bowel lumen.

- A narrowed area of diverticular disease may be impassable because of the severity of disease and there is a significant risk of perforation.

Treatment

Non operative -
1. High fiber diet.
2. Bulk forming agents.
3. Anti spasmodic – if pain.

Operative – For peritonitis and failure of conservative management.
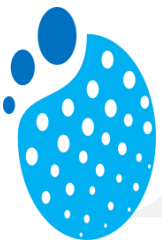
- **Hartmann's procedure.**

Treatment

- Although the evidence for effectiveness in diverticulosis is limited, they oftenly recommended to take a high fiber diet and bulk forming laxatives.

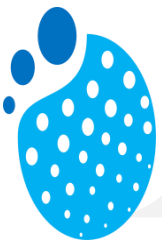- In resolving, recurrent pain problems, antispasmodic has a role.

Treatment

Emergency -

- Bed rest
- Intravenous antibiotics (Cefuroxime,Metronidazole)

Treatment

- The aim of emergency surgery to control peritoneal infection.

- Indications are failure to respond for optimum medical management, generalized peritonitis.

- Laporatomy has a mortality risk of 15% in acute setting.
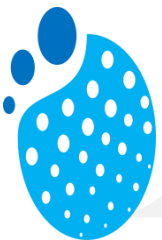
Treatment

- Hartmann's procedure – sigmoid resection with formation of the left illac fossa colostomy and closure of rectal stump , and resection with colonic washout and anastomosis .

- Majority emergency operations for perforated ones.