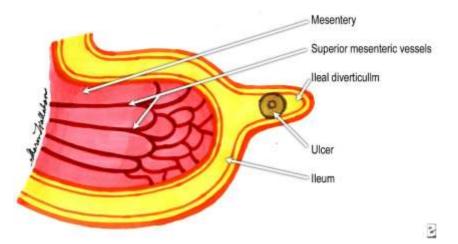
#### **Meckel's Diverticulum**

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# Introduction

- vestigial remnant of vitellointestinal duct
- Congenital anomaly
- True diverticulum
- Ranges from 1-12cm in length & 45-90cm from ileocecal valve
- Hypertrophic tissue
- Gastric mucosa in 50%
- 2% of population
- Male : female is 3: 1

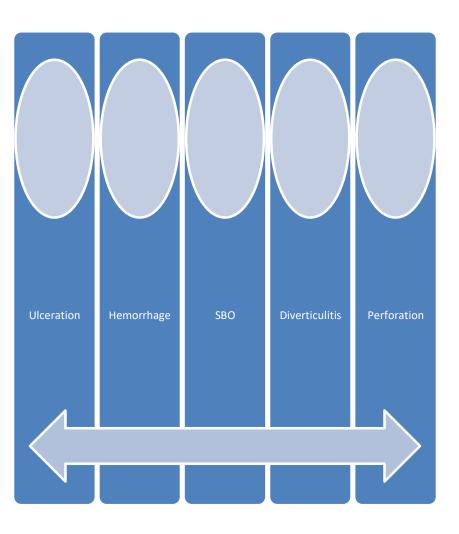


# Introduction

• Commonly incidental finding

• May present as life threatening condition

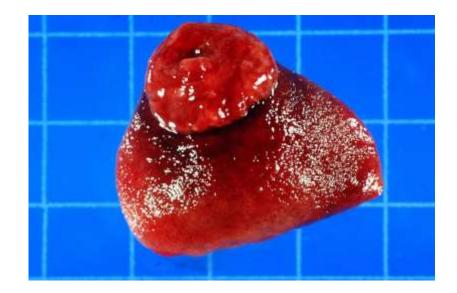
• Risk of complications is 4-25%



#### Hemorrhage

- Most common complication
- 20-30% of all
- More in children under 2 yrs. & males

May be abdominal pain & tenderness



#### Intestinal Obstruction

- 20-25%
- Diagnosis may not be established preoperatively
- When incarcerated in an inguinal hernia, a Meckel diverticulum is called a Littré hernia.

- Abd. Pain, vomiting & Constipation
- intussusception- palpable lump& current jelly stool
- Radiography- ileus or frank stepladder air fluid levels



#### Diverticulitis

- Develops in 10-20%
- Mostly in elderly population
- Intermittent crampy abdominal pain

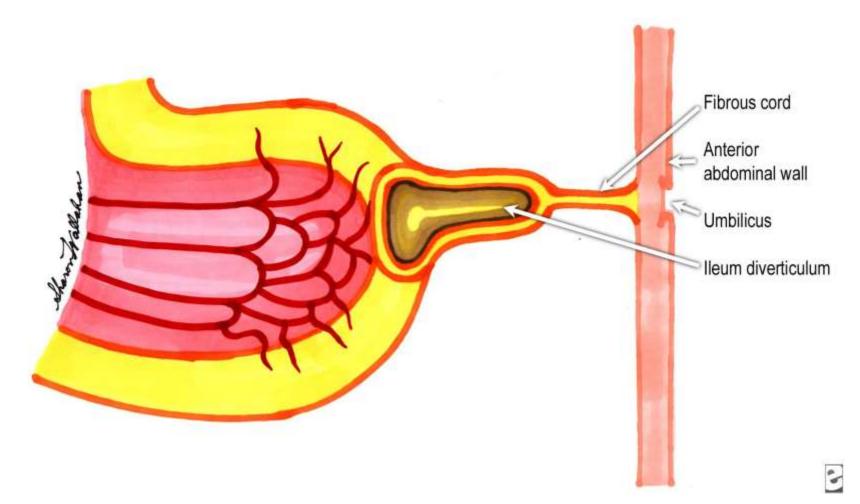
- Tenderness in periumbilical region
- Perforation --- peritonitis
- Can lead to adhesion & Bowel obstruction

### **Umbilical anomalies**

- Occurs in 10%
- As fistula, sinuses & fibrous bands
- Recurrent discharge, infection& healing

• Exploratory laparotomy

# Diverticulum Connected to Umbilicus by Fibrous Cord



#### Neoplasm

- 4-5 %
- Leiomyoma most common
- Leiomyosarcoma,
- Carcinoid tumor
- Fibroma.

 One case of ectopic gastric adenocarcinoma has been reported. Lipoma and angioma have also been found

# Imaging Studies

- On laparoscopy & laparotomy – incidentally found
- Small-bowel followthrough
- Technetium-99m pertechnate radioisotope scanning

• Angiography

 Double-balloon enteroscopy

## Indications for Surgery

- Symptomatic Meckel's diverticulum
- Intestinal obstruction Diverticulitis

- Absolute indications for resection in Meckel's diverticulum are
- Umbilicoileal fistulas.

• Hemorrhage

# Symptomatic Meckel's diverticulum Indications for Surgery

## Absolute indications for resection in Meckel's diverticulum are

#### Hemorrhage

# Intestinal obstruction

## Diverticulitis

#### Fistulas

# Additional surgical considerations include the following:

- Hemorrhage
  Segmental resection
  - Umbilical sinus & fistula

Intestinal obstruction

# Incidentally Discovered Meckel's Diverticulum

• Diverticulum with a wide mouth.

&

 Diverticulum with narrow neck.  A diverticulum deemed abnormal because of inflammation, thickening, or intramural pathology should be resected,

# Resection is recommended in the following cases:

- Patients younger than 40 years
- Diverticula longer than 2 cm

- Diverticula with fibrous bands
- Suspected ectopic gastric tissue

- Diverticula with narrow necks
- Inflamed, thickened diverticula

#### Possible surgical procedures

- Diverticulectomy with suture closure of the base
- Wedge resection of the intestinal wall containing the diverticulum with suture closure

 Segmental resection of the intestine, including the diverticulum, and end-toend anastomosis

 Division of the fibrous band, with or without diverticulectomy