



# Friday Teaching

*Dr. Naga Kandasamy*

*19.05.2006*

# Malrotation

- Malrotation is defined as any disturbance of the physiological anteclockwise rotation of the bowel during embryonal development.
- Abnormal fixation of the mesentery
  1. Shorter than usual
  2. Upper position is below the ligament of Trietz and lower position is above and medial to normal caecal position.

- Types
  1. Non Rotation
  2. Incomplete rotation
  3. Reverse rotation

## Non Rotation

- Most common
- Asymptomatic and often incidental finding in older children and adults
- SMA to the right of SMV
- Large intestine to left and small intestine to the right
- **Volvulus**

## Incomplete Rotation

- Caecum inferior to pylorus
- **Duodenal obstruction due to peritoneal bands**

## Reverse Rotation

- Rare
- Duodenum is anterior to the SMA
- Transverse colon is behind duodenum and SMA
- **Transverse colon obstruction by SMA**

Superior mesenteric venous thrombosis and acute ischemic infarction of the bowel.

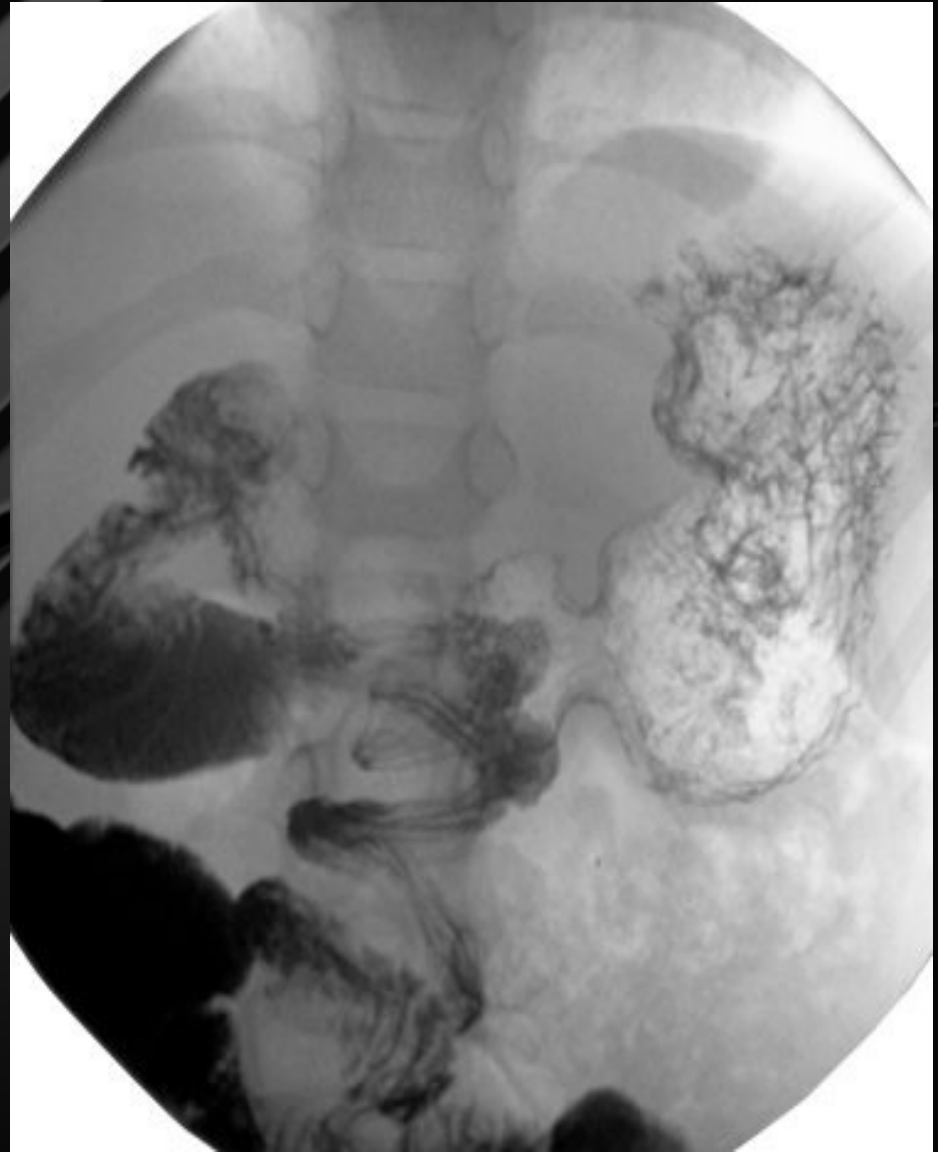
Pruritus, cholangitis, secondary pancreatitis and ascites were rarely found.

## Ultrasound

- “ Whirlpool “ sign – bowel loops around the SMA
- Other signs – duodenal dilatation, dilatation of the terminal SMV, fixed midline bowel.

## Upper GI series

- DJ flexure below the pylorus
- Duodenal obstruction
- Position of caecum
- Whirlpool sign



- CT rarely required in the clinical settings but may be useful if ultrasound is equivocal

