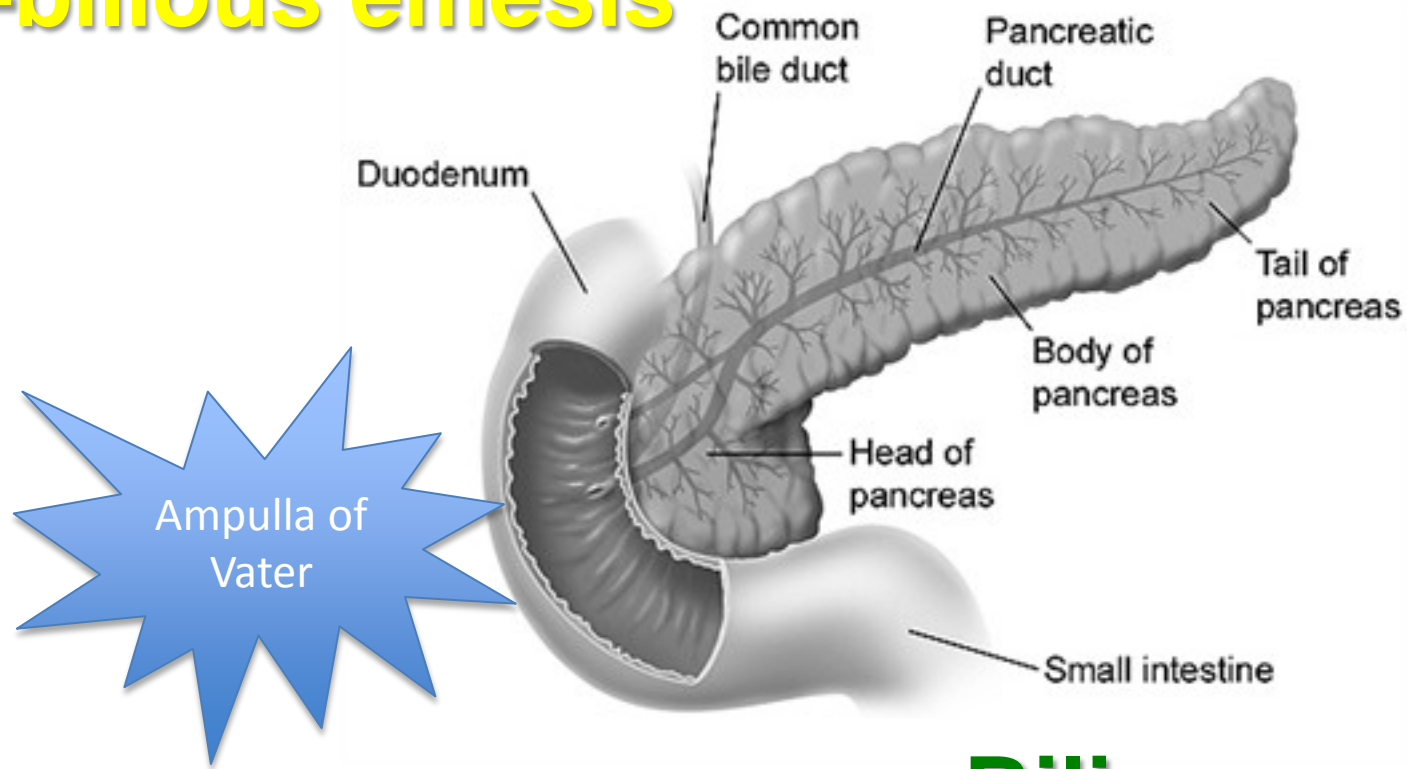


# 18 day old male with vomiting



# What color was it?

## Non-bilious emesis

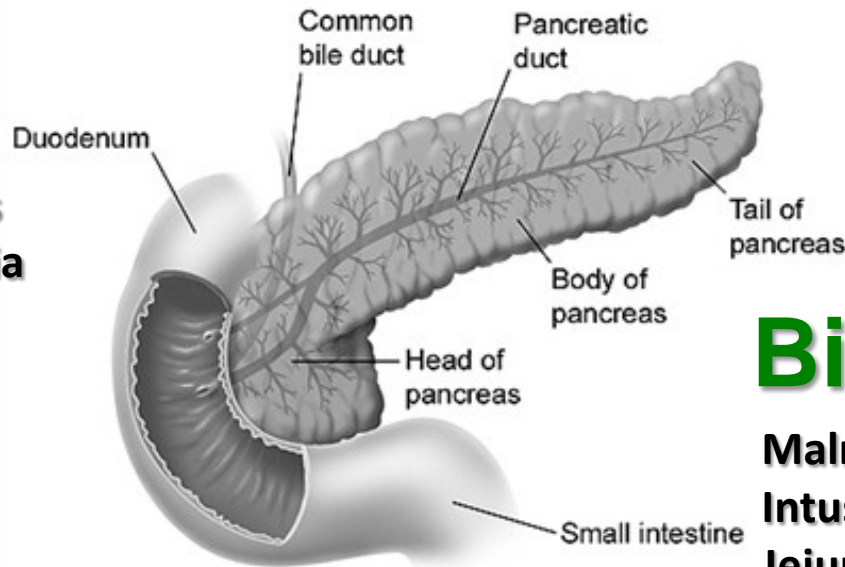


## Bilious emesis

# Surgical causes of GI obstruction in a newborn

## Non-bilious emesis

**GERD**  
**Pyloric stenosis**  
**Duodenal atresia**  
**Annular pancreas**  
**Esophageal atresia**

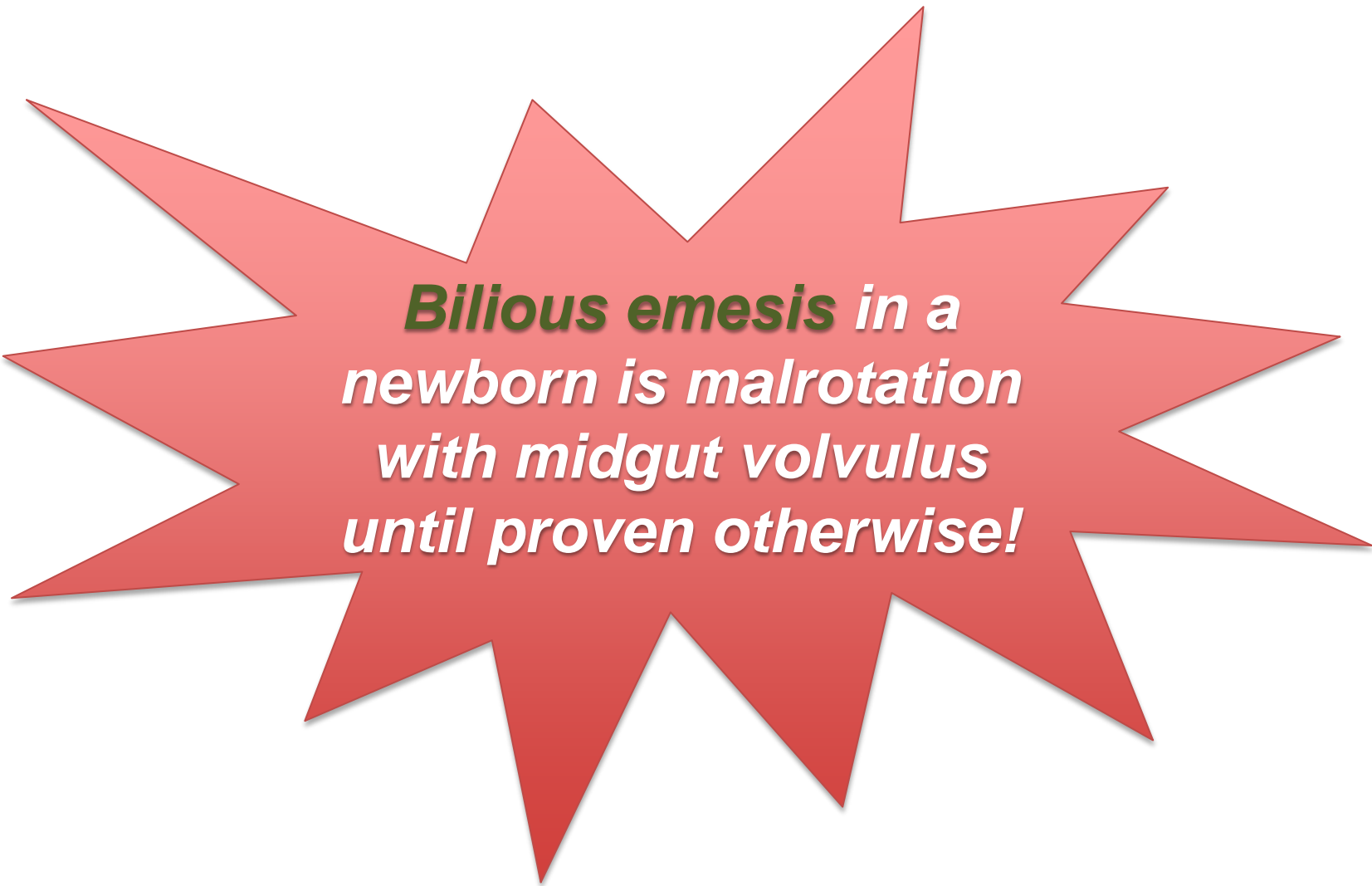


## Bilious emesis

**Malrotation with midgut volvulus**  
**Intussusception**  
**Jejunoileal atresia**

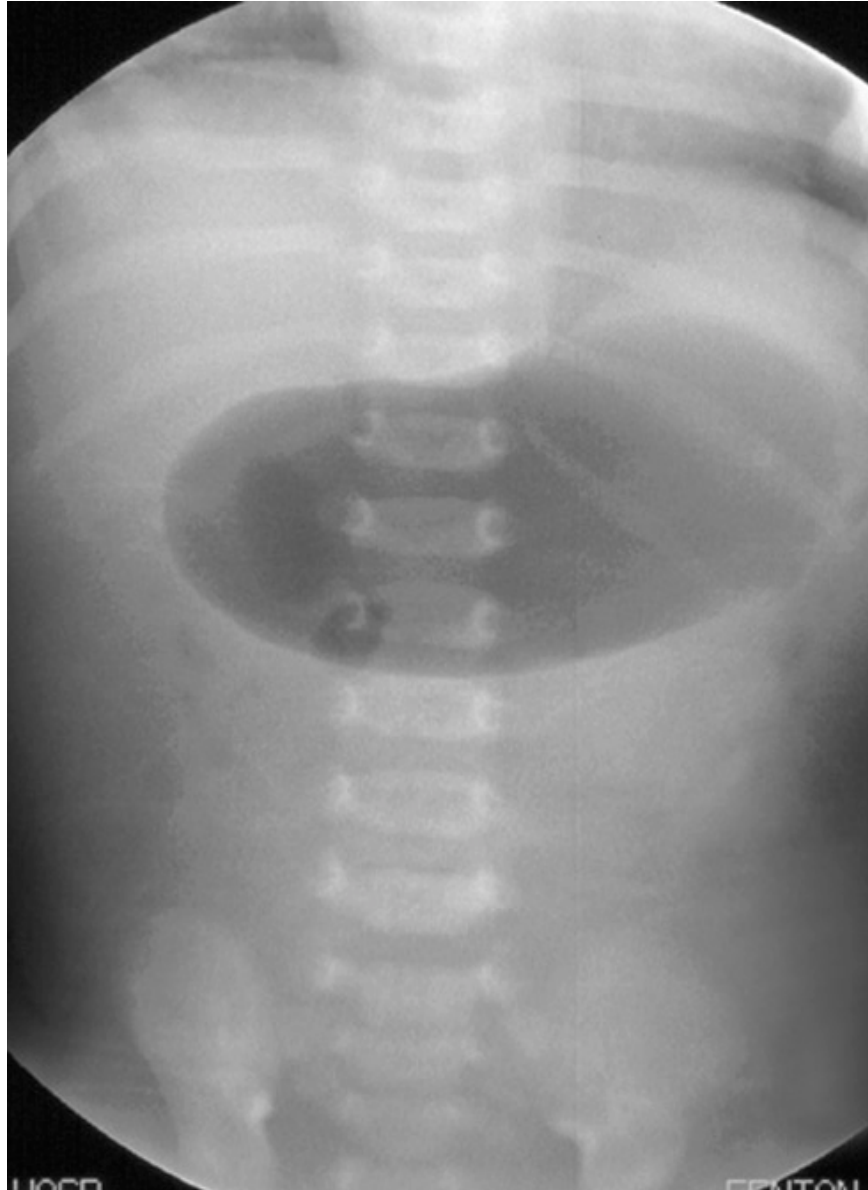
Meconium plug syndrome  
Meconium ileus  
Hirschprung's disease  
Imperforate anus

# Remember

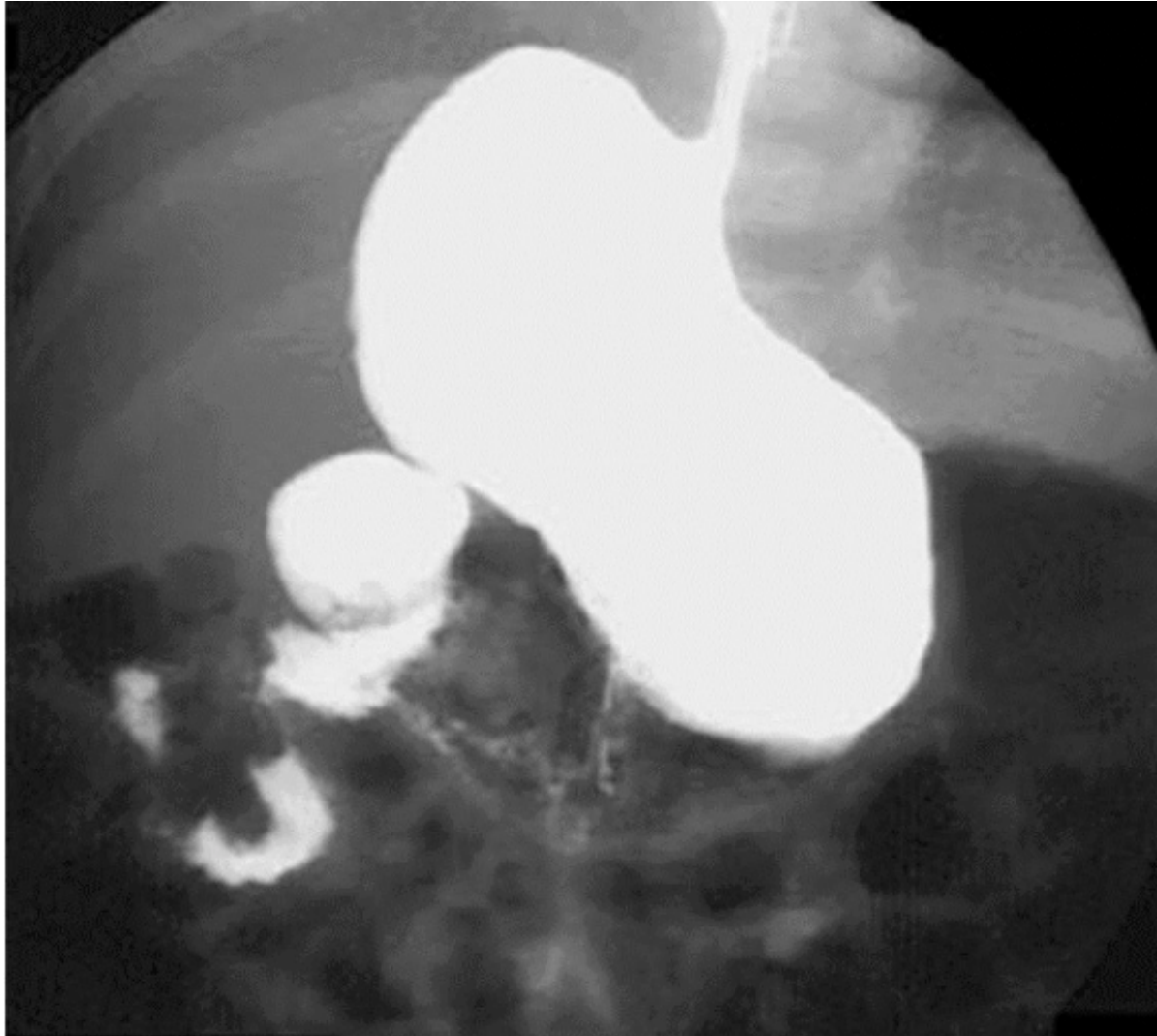


***Bilious emesis in a  
newborn is malrotation  
with midgut volvulus  
until proven otherwise!***

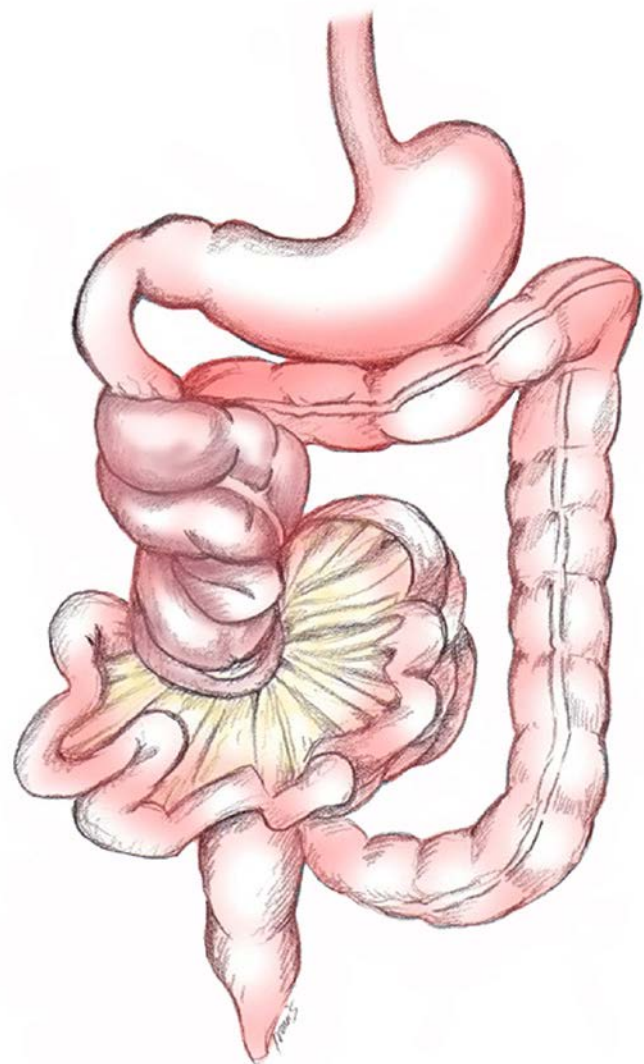
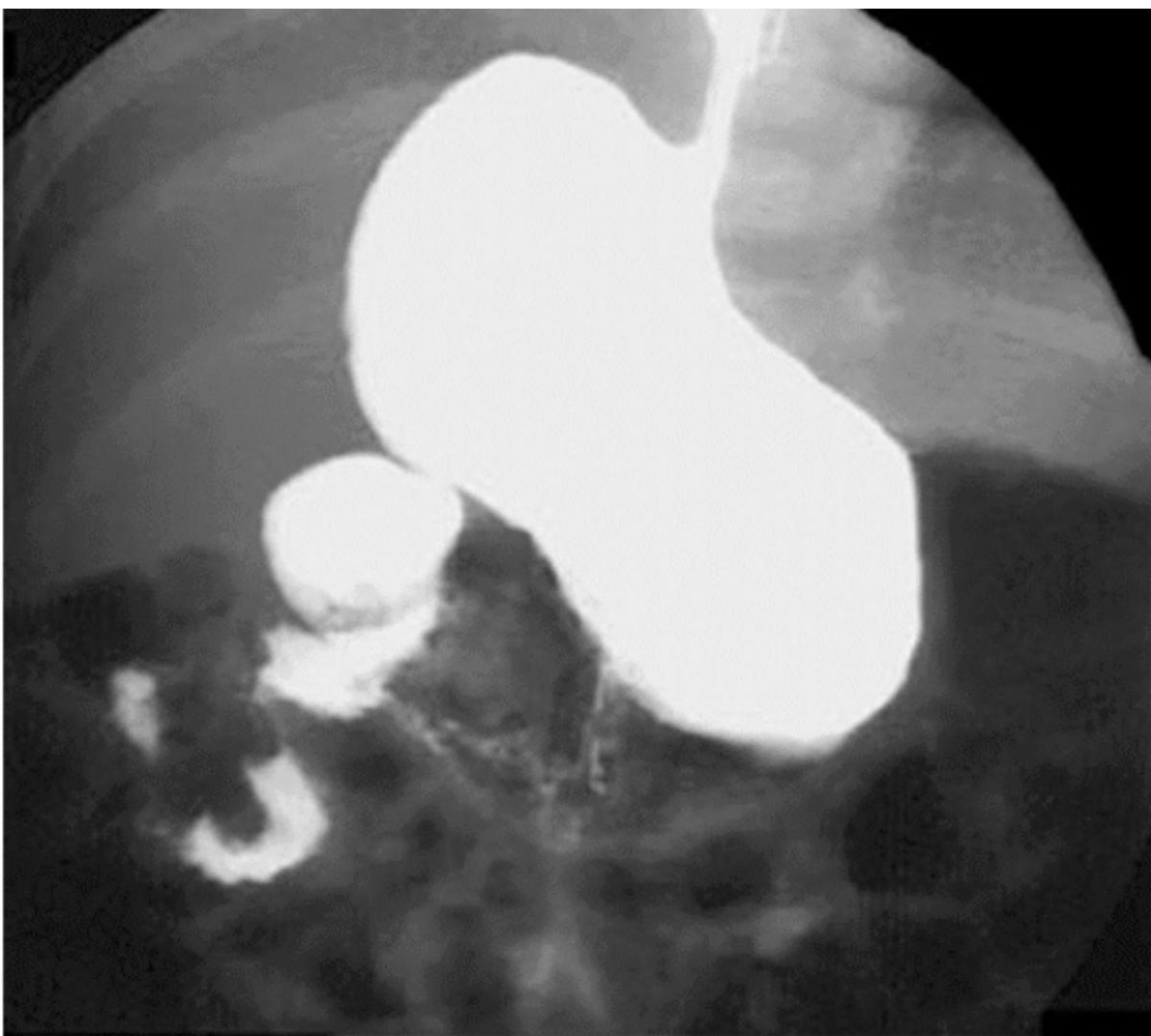
# Abdominal XR



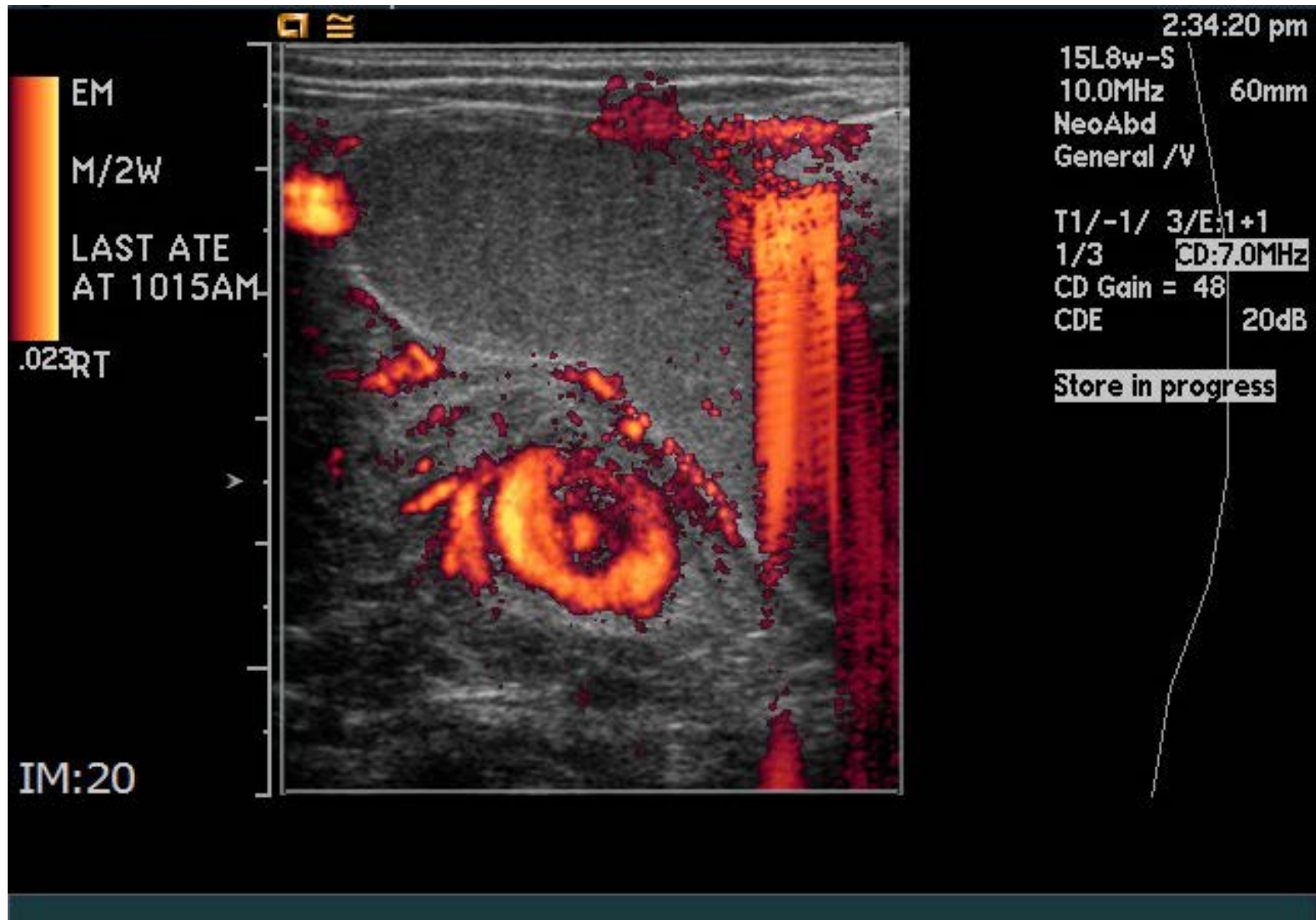
# Upper GI





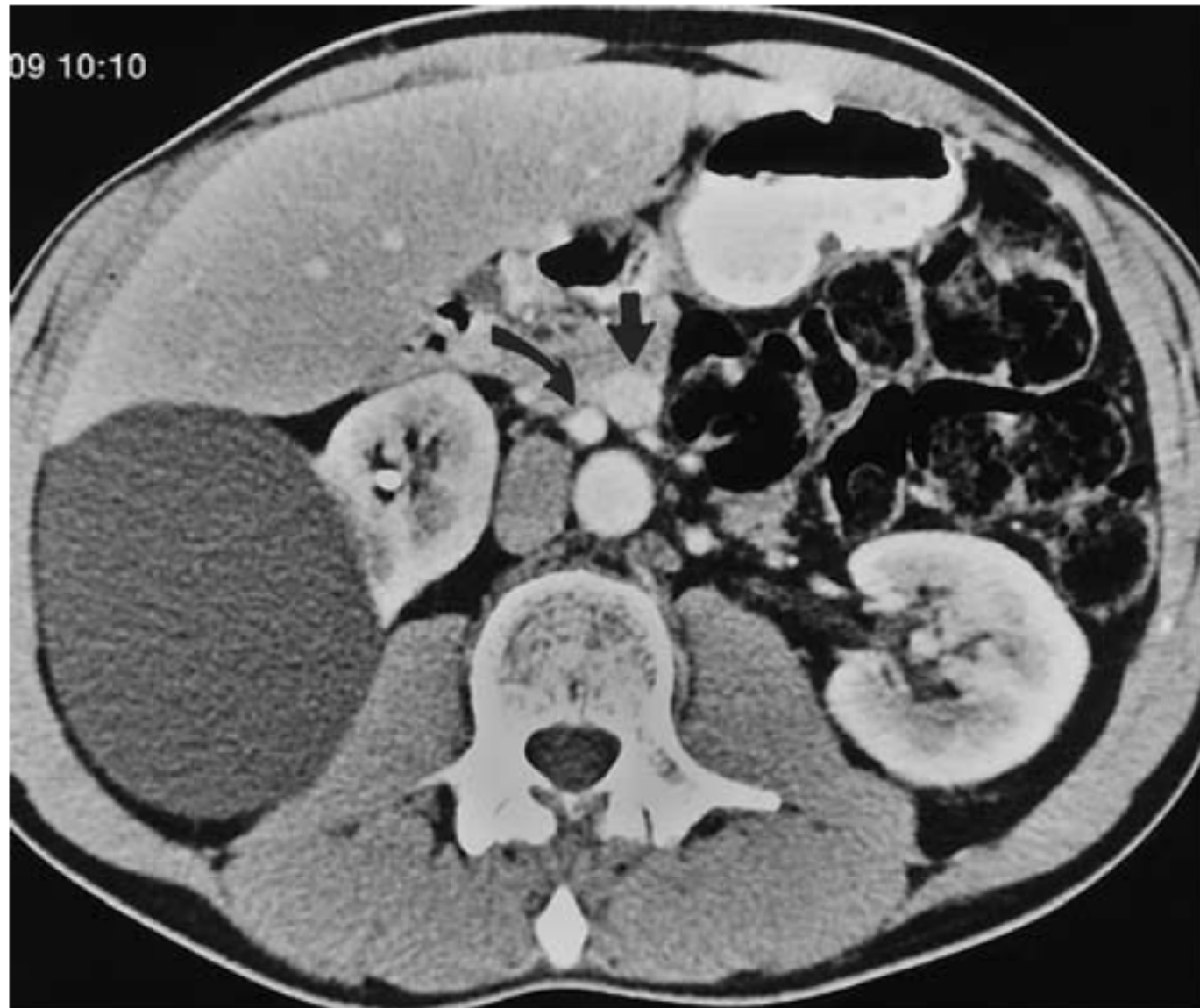


# Ultrasound: Whirlpool Sign

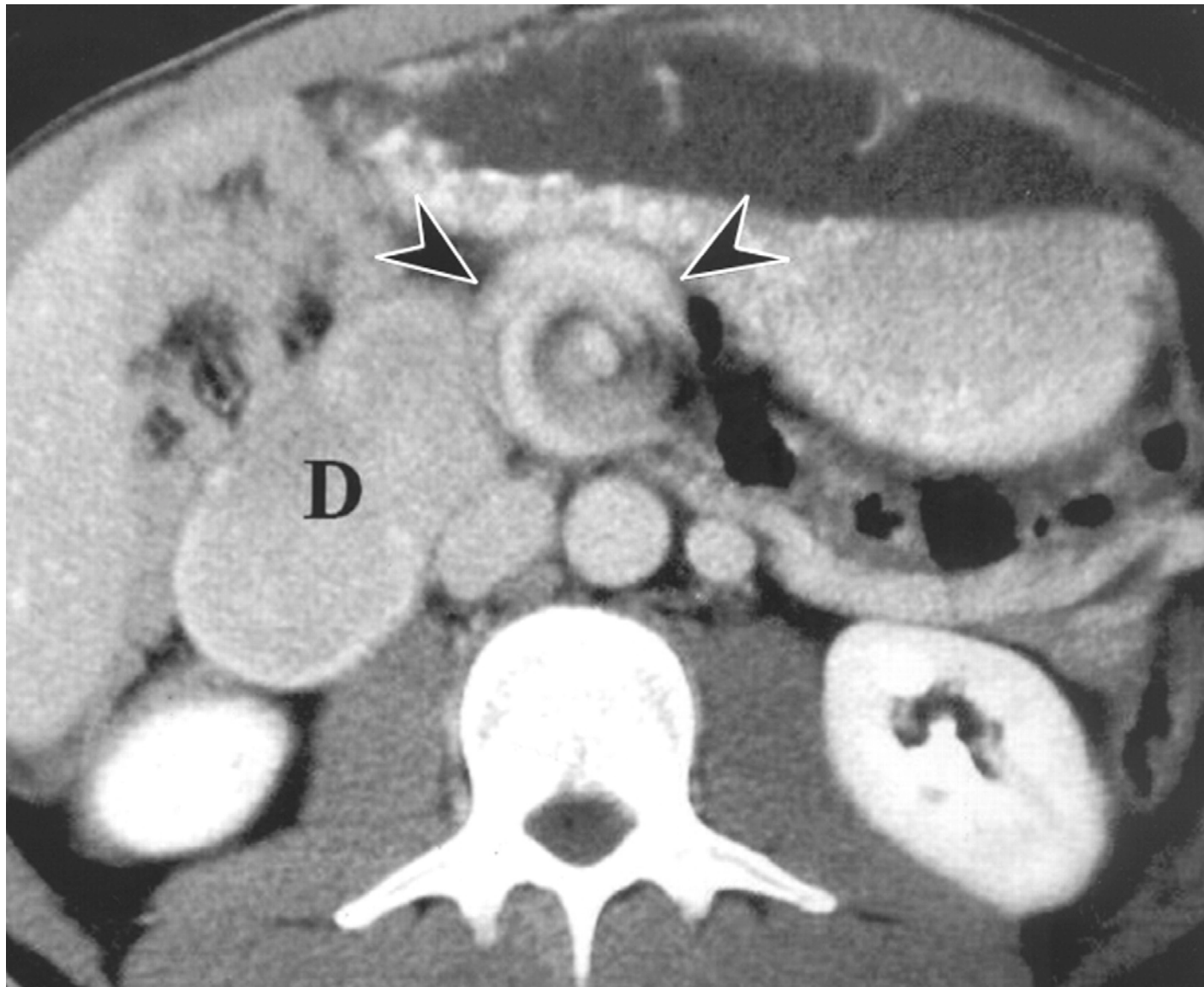




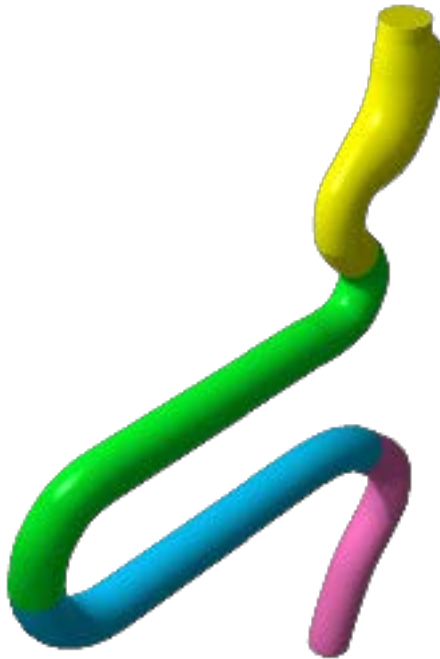
# CT Scan



# CT Scan

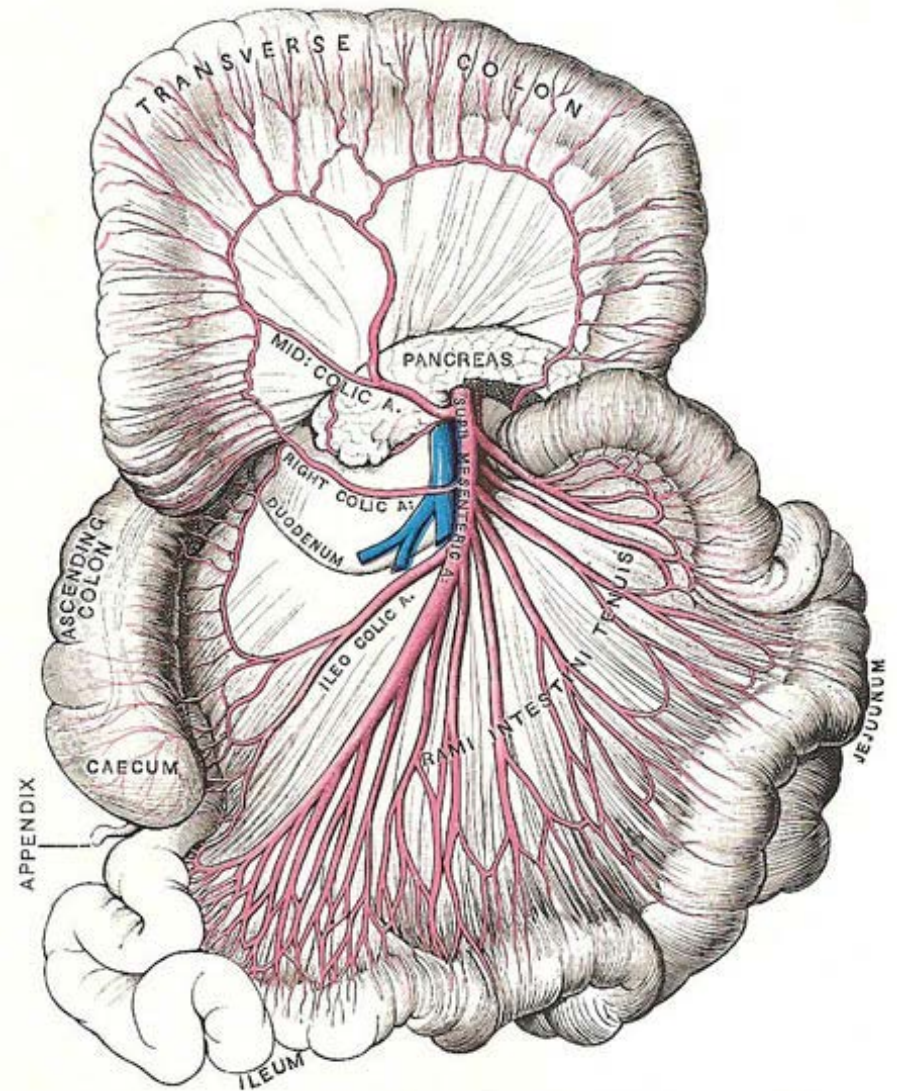
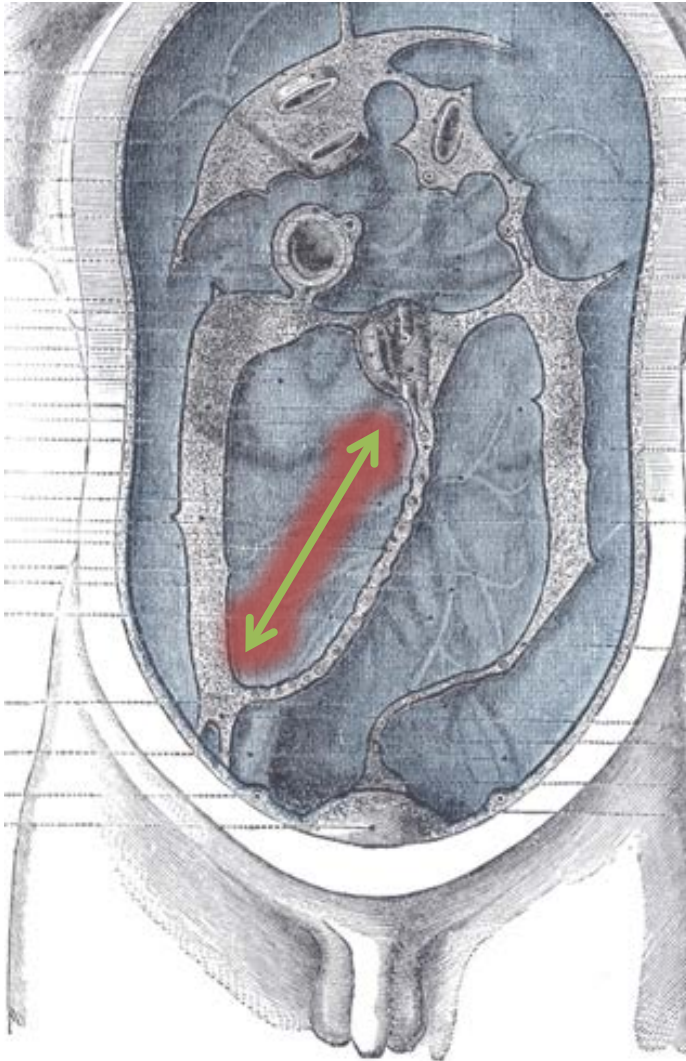


# Normal Midgut Rotation

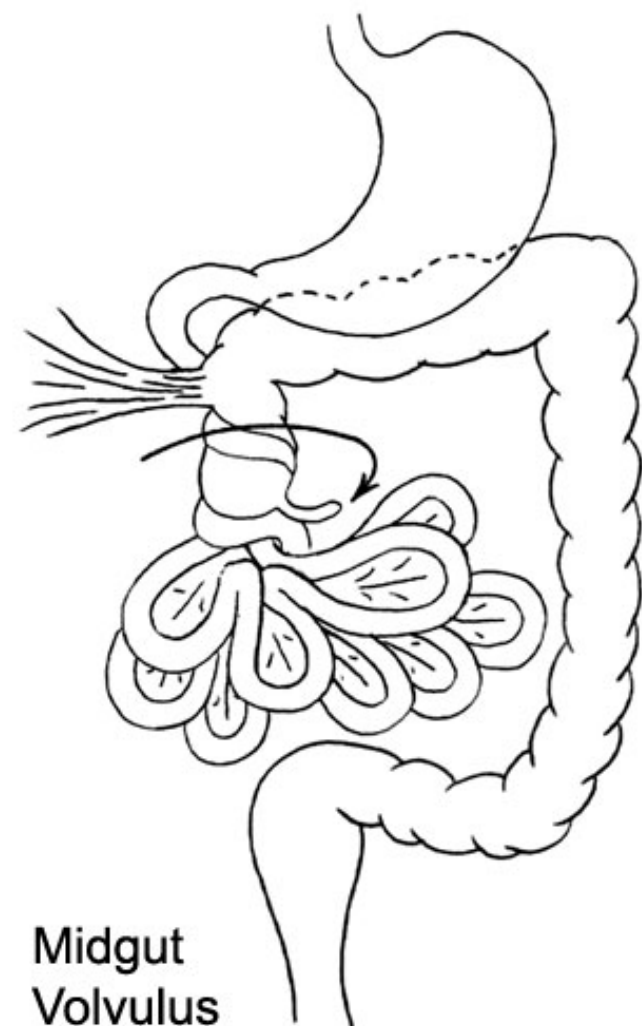
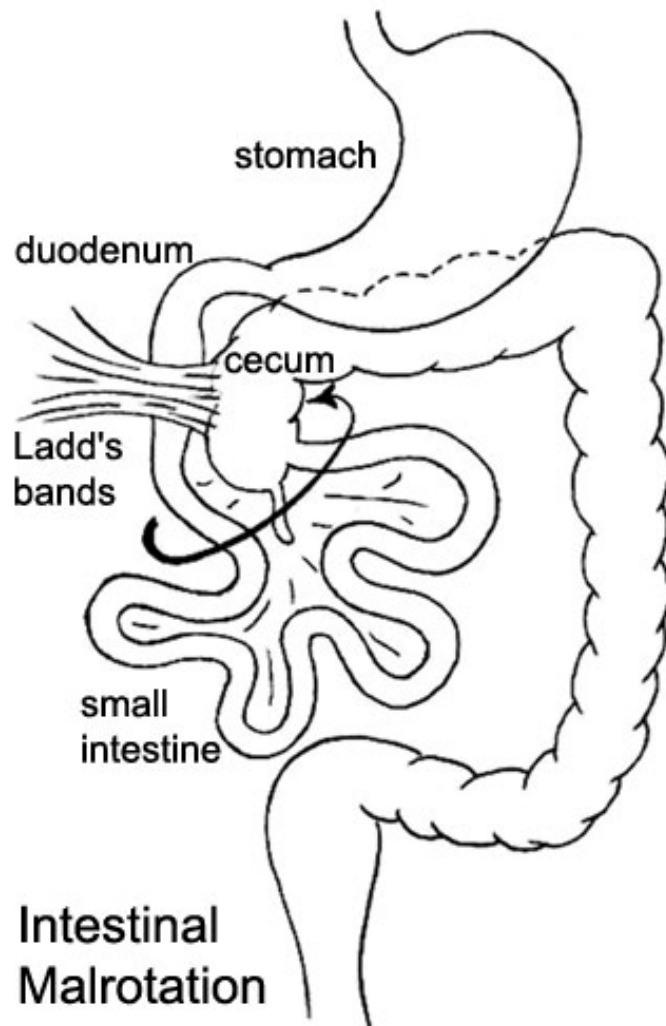




# Normally Anchored SB Mesentery

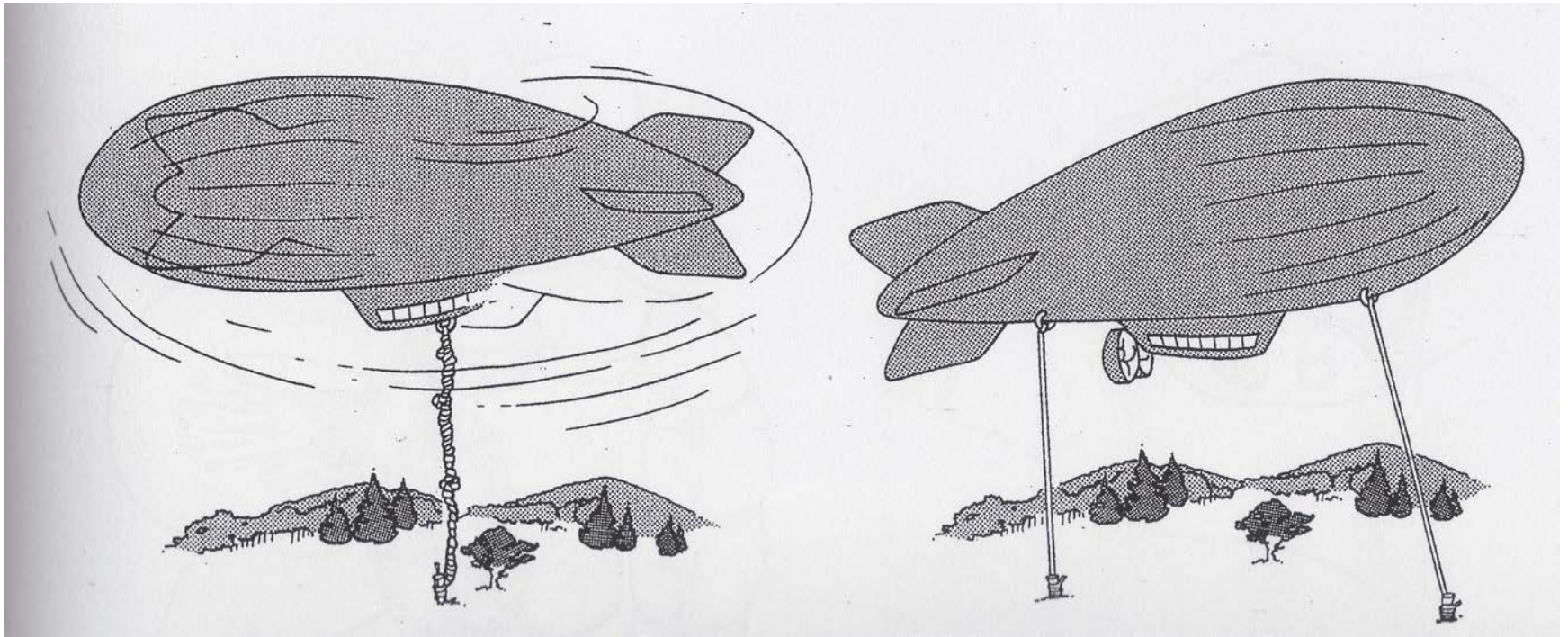


# Narrow vascular pedicle allows for midgut volvulus





# The Root of Midgut Volvulus

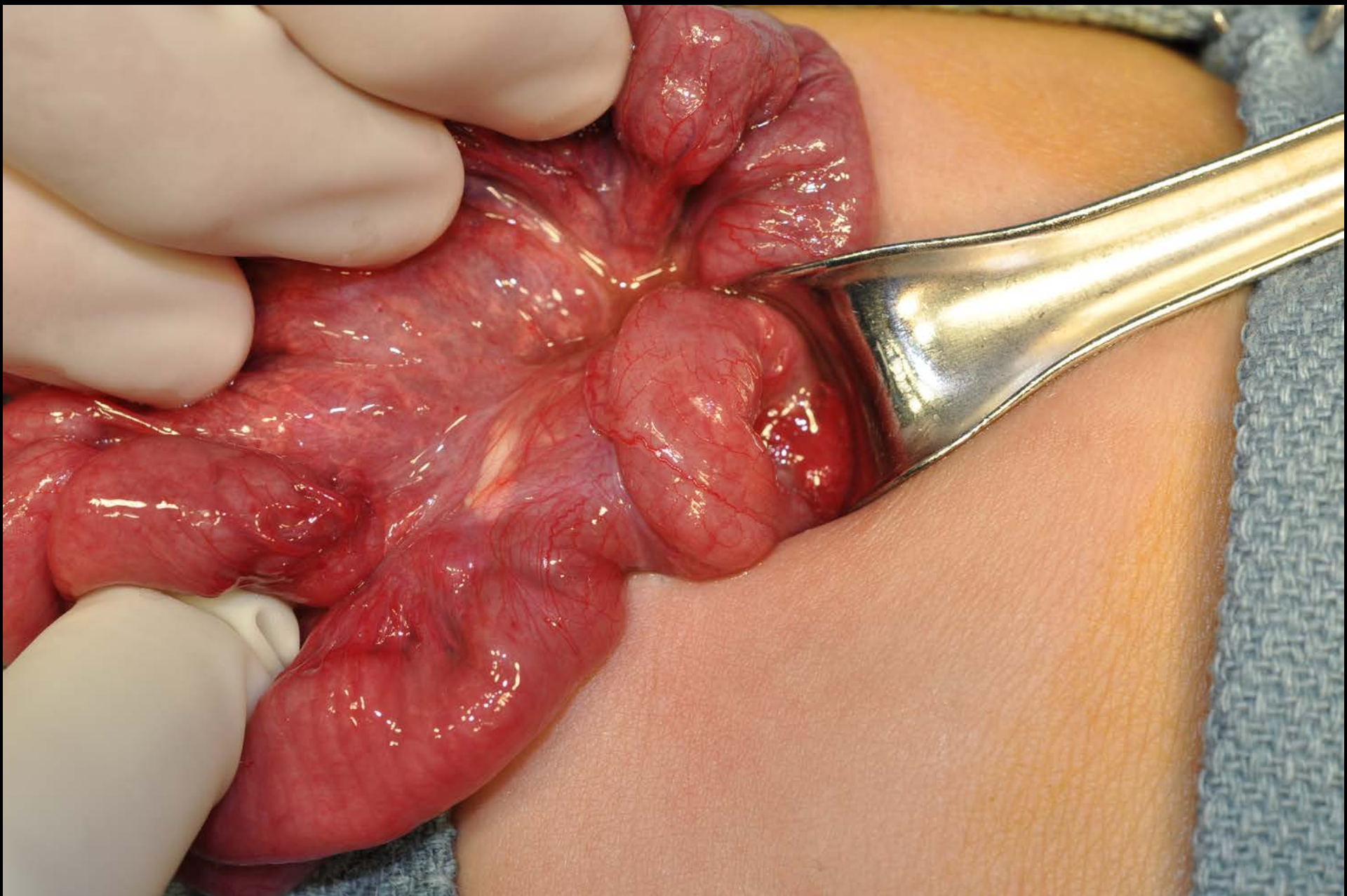


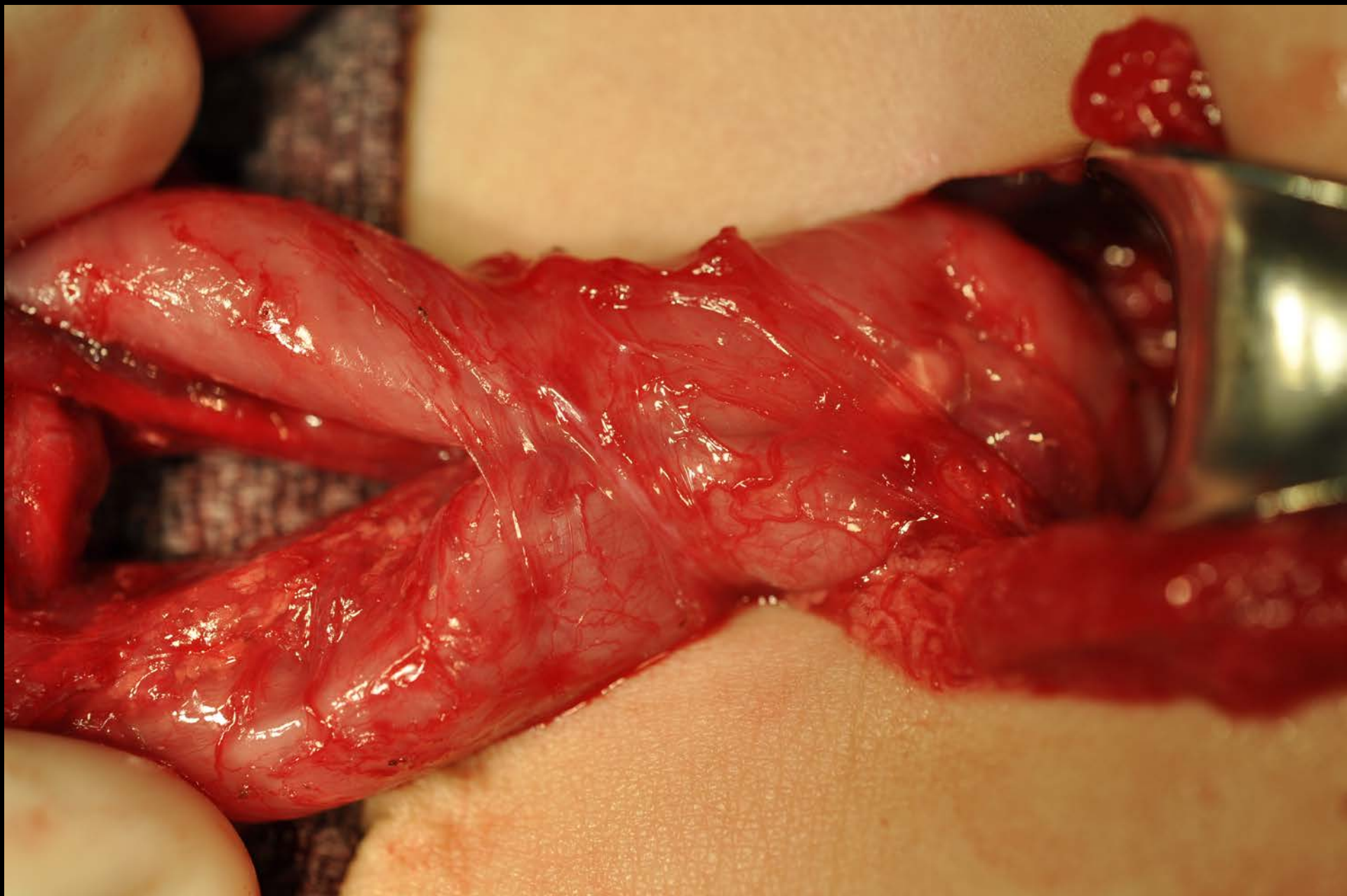
**Point-based root of mesentery  
in malrotation**

**Broad-based normal root  
of mesentery**

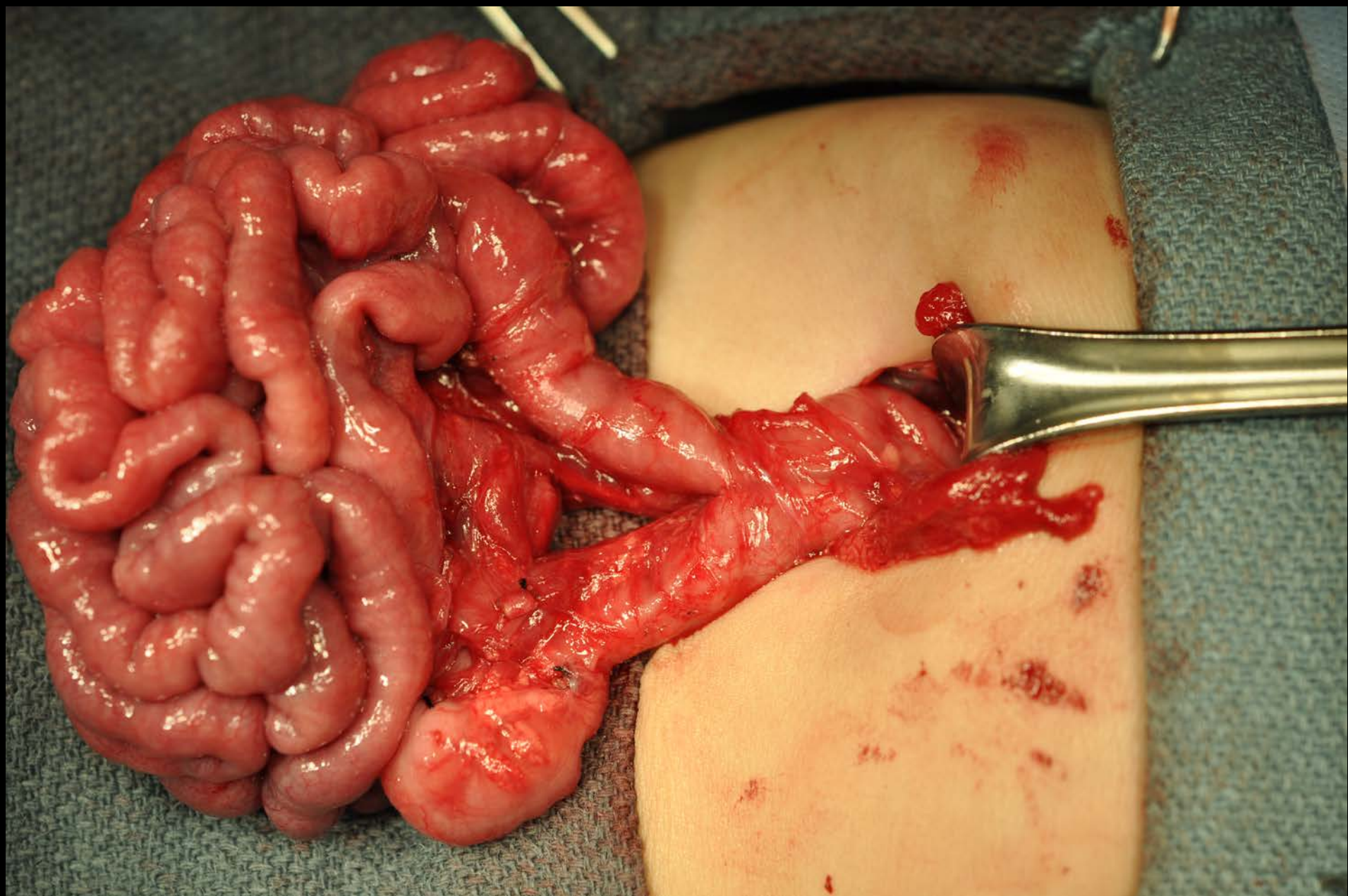






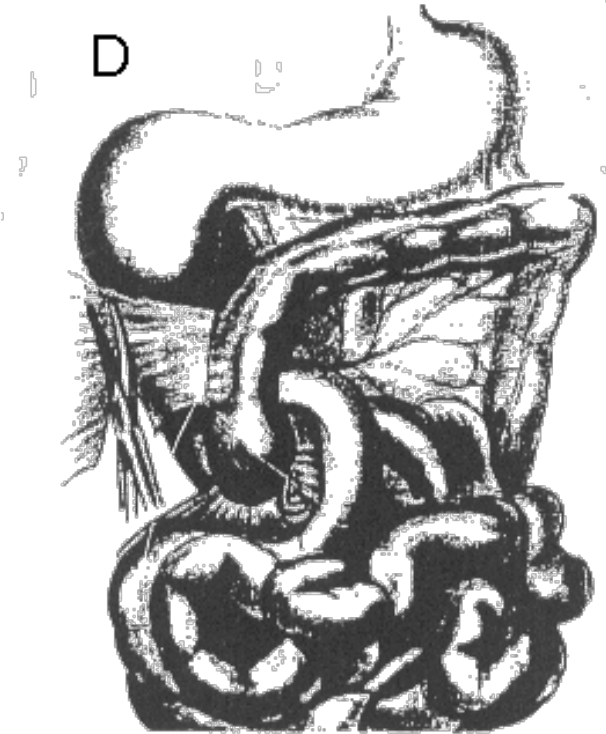
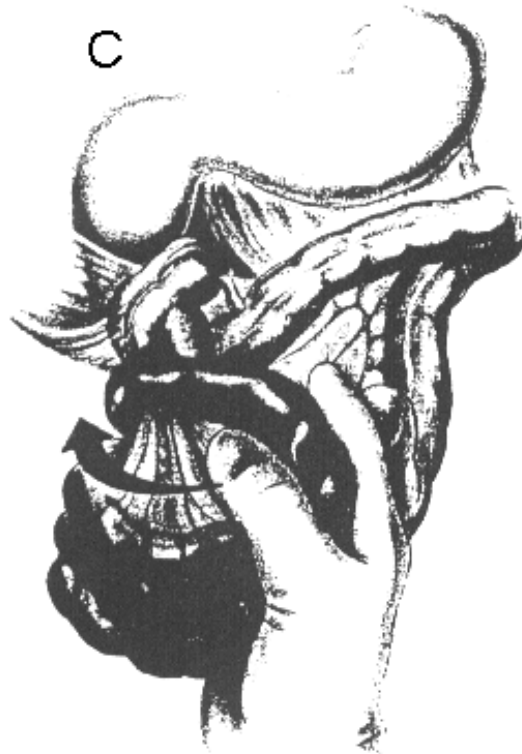








# Steps of Ladd's Procedure



# Results of Ladd's Procedure

