

1 ☐ **ABNORMALITIES OF THE FETAL ABDOMEN**

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3 ☐ **Bowel Atresia or Obstruction**

- ☐ Stomach lies on left side of abdomen
 - ☒ Anechoic cystic structure
- ☐ Duodenal atresia
 - ☒ Second cystic area in fetal abdomen
 - ☒ Usually smaller than normal stomach
 - ☒ Linked to trisomy 21
- ☐ Esophageal atresia
 - ☒ No stomach bubble identified

4 ☐ **Bowel Atresia or Obstruction**

- ☐ High small bowel obstruction
 - ☒ Two or more cystic areas in abd.
 - ☒ Exclude the gallbladder
- ☐ Evaluate for polyhydramnios
- ☐ Obstructive process
 - ☒ Proximal to obstruction
 - ☒ Filled with fluid
 - ☒ Distal to obstruction
 - ☒ Unable to visualize with sonography

5 ☐ **The Gall Bladder**

- ☐ Located slightly below the abdominal circumference
- ☐ Elongated shape
- ☐ More anterior position
- ☐ Right side of fetal abdomen

6 ☐ **The Bowel**

- ☐ Evaluate in the sagittal and transverse views-subjectively
- ☐ When evaluating for echogenicity
 - ☒ Compare to that of fetal bone
- ☐ Intraamniotic bleeding most common cause
 - ☒ Cystic fibrosis also a cause
 - ☒ Trisomy 21
 - ☒ Congenital infection

7 ☐ **Anterior Abdominal Wall Defects**

- ☐ Diagnose after 12 weeks
- ☐ Raised maternal AFP
- ☐ Evaluate at site of umbilical cord insertion

- Document only umbilical cord vessels coming and going
- Nothing else entering or leaving this opening

8 ☐ **Omphalocele vs Gastroschisis**

- 1 Embryology
- 2 ☐ Four embryonic folds
 - Cephalic
 - Ectopia cordis
 - Caudal
 - Bladder extrophy
 - 2 lateral
 - Omphalocele
- 3 Failures
- 4 ☐ Two lateral folds fail to fuse
 - Gut doesn't return to abd. cavity
 - Omphalocele
- ☐ Normal fold fusion
 - Small abd. wall defect
 - Gastroschisis

9 ☐ **Omphalocele**

- 1 ☐ Peritoneal sac containing
 - Liver, small bowel, stomach possibly colon
- ☐ Covered by peritoneum
- ☐ Umbilical cord inserts into apex
 - 50% cases associated with chromosomal abnormalities
 - Surgically repairable

10 ☐ **gastroschisis**

- ☐ Body folds develop and fuse normally, but small defect arises in abdominal wall
 - Usually below and to the right of the cord insertion
- ☐ Thought to be from vascular compromise
- ☐ Typically only small bowel escapes
- ☐ Not covered by peritoneum
 - Free floating in amniotic fluid
- ☐ Not associated with chromosomal abnormalities

11 ☐ **Pentalogy of Cantrell**

- ☐ Failure of fusion of lateral folds in the thoracic region
- ☐ Failure of development of diaphragm
- ☐ Omphalocele and ectopic heart
 - Diaphragmatic hernia
 - Midline abd. wall defect
 - Cardiac abnormalities
 - Pericardium defect

- ☐ Lower sternal defect

- ☐

12 ☐ **Limb Body Wall Complex**

- ☐ Failure of closure of ventral body wall

- ☐ At least 2 of these abnormalities

- ☐ Limb defects

- ☐ Anterior body defects

- ☐ Encephalocele

- ☐ Facial defects

- ☐ Early vascular accident

13 ☐ **Bladder Exstrophy**

- ☐ Failure of muscle development of anterior abd wall

- ☐ Typically isolated defect

- ☐ Sonographic findings:

- ☐ Inability to identify bladder in normal position

- ☐ Abd wall mass

- ☐ Umbilicus inferiorly displaced

- ☐ Distinguish from omphalocele or gastroschisis by evaluating cord insertion and content within the abd. mass

14 ☐ **Conclusion**

- ☐ Identify normal stomach

- ☐ Too many cystic structures

- ☐ Stomach never identified

- ☐ Abdominal wall defects

- ☐ Membrane

- ☐ Cord insertion

- ☐ Bowel contents or bowel and organs

- ☐ Bladder never fills

- ☐ Evaluate amniotic fluid

- ☐ Ask about maternal serum AFP values

15 ☐

16 ☐