

# MULTIPLE CHOICE

## OB FETAL ANOMALIES OTHER SYSTEMS - PRACTICE SET - ANSWER KEY

PROPOSED FOR REVIEW - questions are the author's verbatim Q&A; distractors are auto-selected from other answers in the same bank and must be checked by a subject-matter reviewer (a distractor could coincidentally be correct). Not authoritative assessment content.

1. Which finding on the outflow tract views is most characteristic of transposition of the great arteries?

- A. The aorta overrides a ventricular septal defect
- B. A narrowed pulmonary outflow with right ventricular hypertrophy
- C. The great vessels run parallel rather than crossing**
- D. A single great vessel arises from the heart

2. Cystic hygroma seen in the late first trimester is associated with what increased risk besides aneuploidy?

- A. Gestational diabetes
- B. Maternal preeclampsia
- C. Preterm premature rupture of membranes
- D. Nonimmune hydrops fetalis and fetal demise**

3. Which facial-cleft variant is generally the most difficult to detect with prenatal ultrasound?

- A. Bilateral cleft lip with cleft palate
- B. Isolated cleft palate without cleft lip**
- C. Unilateral cleft lip with cleft palate
- D. Median cleft lip

4. An omphalocele containing only bowel rather than liver is most strongly associated with which complication?

- A. Higher risk of bowel atresia from amniotic fluid exposure
- B. Higher risk of aneuploidy, especially trisomy 18**
- C. Higher risk of cord accident
- D. Higher risk of placental abruption

5. On the four-chamber view, the left ventricle is small and echogenic with a non-contractile myocardium, and the mitral valve does not open. Which diagnosis is most consistent?

- A. Hypoplastic left heart syndrome**
- B. Tricuspid atresia
- C. Transposition of the great arteries
- D. Tetralogy of Fallot

6. To identify a skeletal dysplasia, which biometric ratio is most helpful for distinguishing limb shortening from constitutionally small size?

- A. Nuchal translucency thickness
- B. Femur length compared to gestational-age norms and to other biometric parameters**
- C. Cisterna magna depth
- D. Biparietal diameter compared to abdominal circumference

7. A fetus has multiple bowed and angulated long bones with apparent fractures and a markedly hypomineralized skull that compresses easily with transducer pressure. Which diagnosis is most consistent?

- A. Osteogenesis imperfecta type II**
- B. Achondroplasia
- C. Campomelic dysplasia
- D. Thanatophoric dysplasia

8. Which thoracic finding is the strongest predictor of lethality across skeletal dysplasias?

- A. Mild rib angulation
- B. Echogenic foci within the lungs
- C. Multiple rib fractures alone

**D. A narrow, bell-shaped chest causing pulmonary hypoplasia**

9. A male fetus has a markedly distended, thick-walled bladder with a dilated posterior urethra that gives the bladder a keyhole appearance, along with bilateral hydronephrosis and oligohydramnios. Which diagnosis is most consistent?

**A. Posterior urethral valves**

- B. Bladder outlet obstruction from urethral atresia with patent urachus
- C. Vesicoureteral reflux
- D. Prune belly syndrome

10. Which type of congenital pulmonary airway malformation (CPAM) is most likely to appear as a solid echogenic lung mass on prenatal ultrasound?

- A. Bronchogenic cyst
- B. Macrocystic (Stocker type I) CPAM
- C. Pulmonary sequestration
- D. Microcystic (Stocker type III) CPAM**

11. Atrioventricular canal defect is most strongly associated with which aneuploidy?

- A. Trisomy 13
- B. Trisomy 21**
- C. Trisomy 18
- D. Turner syndrome

12. Echogenic intracardiac focus is most often located in which cardiac chamber?

- A. Left ventricle**
- B. Right atrium
- C. Right ventricle
- D. Left atrium

13. A second-trimester fetus has a thin-walled, septated, fluid-filled mass arising from the posterior neck. Which finding is most characteristic of cystic hygroma?

- A. A solid hyperechoic mass at the base of the skull
- B. Bilateral nuchal cystic masses with a midline septum**
- C. A unilocular anterior neck cyst that moves with swallowing
- D. A pulsatile vascular mass in the lateral neck

14. Anterior fetal abdominal wall defects involving the lower abdomen and bladder, with absence of a normal bladder on serial scans and a soft tissue bulge below the cord insertion, suggest which diagnosis?

- A. Gastroschisis
- B. Omphalocele
- C. Bladder exstrophy**
- D. Cloacal exstrophy with omphalocele

15. Which of the following is a recognized cause of nonimmune hydrops fetalis?

- A. Maternal Rh isoimmunization
- B. Fetal supraventricular tachycardia**
- C. Maternal Kell isoimmunization
- D. Maternal anti-Duffy antibody hemolysis

16. Prenatally diagnosed duodenal atresia is most strongly associated with which aneuploidy?

- A. Trisomy 21**
- B. Trisomy 13
- C. Turner syndrome
- D. Trisomy 18

17. Which mechanism best describes immune hydrops fetalis?

- A. Parvovirus B19 suppression of fetal erythropoiesis
- B. Twin-to-twin transfusion syndrome in monochorionic twins
- C. Fetal cardiac dysfunction from a structural defect
- D. Maternal red cell antibodies cross the placenta and cause fetal hemolytic anemia**

18. Which sonographic view is most important for screening structural cardiac defects in the second trimester?

- A. Four-chamber view of the heart**
- B. Ductal arch sagittal view
- C. Aortic arch sagittal view
- D. Three-vessel view of the upper mediastinum

19. In which transducer plane of the fetal face is a cleft lip best evaluated?

- A. Axial plane through the cerebellum
- B. Coronal plane through the nose and upper lip**
- C. Midline sagittal plane through the profile
- D. Axial plane through the orbits

20. A second-trimester fetus has anhydramnios, an empty fetal bladder, and no kidney visible in either renal fossa or the pelvis on repeated imaging. Which diagnosis is most consistent?

- A. Posterior urethral valves
- B. Bilateral multicystic dysplastic kidneys
- C. Bilateral renal agenesis**
- D. Bladder exstrophy

21. A fetal abdominal wall defect is identified to the right of a normally inserted umbilical cord, with free-floating loops of bowel in the amniotic fluid and no covering membrane. Which diagnosis is most consistent?

- A. Omphalocele
- B. Gastroschisis**
- C. Umbilical hernia
- D. Body stalk anomaly

22. Which feature on prenatal ultrasound is most characteristic of autosomal recessive polycystic kidney disease (ARPKD)?

- A. Small echogenic kidneys with normal amniotic fluid
- B. Bilateral enlarged echogenic kidneys with loss of corticomedullary differentiation and oligohydramnios**
- C. Unilateral enlarged kidney with hydronephrosis
- D. Bilateral kidneys with multiple large noncommunicating cysts of varying size

23. Which abdominal wall defect is associated with the highest rate of associated chromosomal abnormalities?

- A. Gastroschisis
- B. Bladder exstrophy
- C. Umbilical hernia
- D. Omphalocele**

24. A third-trimester fetus has two fluid-filled structures in the upper abdomen connected at the pylorus, in the absence of distal bowel dilation. Which diagnosis best fits this double-bubble sign?

- A. Duodenal atresia**
- B. Jejunal atresia
- C. Meconium ileus
- D. Hirschsprung disease

25. On a midline sagittal profile view, a fetus shows a small, recessed chin. Which term best describes this finding?

- A. Micrognathia**
- B. Frontal bossing
- C. Macroglossia
- D. Retrognathia of the maxilla