

MULTIPLE CHOICE

OB ANEUPLOIDY AND MULTIPLES - PRACTICE SET

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. Rocker-bottom feet are most strongly associated with which trisomy?

- A. Trisomy 21
- B. Trisomy 13
- C. Monosomy X
- D. Trisomy 18

2. Cystic hygroma identified in the first trimester is most strongly associated with which aneuploidy?

- A. Trisomy 18
- B. Monosomy X (Turner syndrome)
- C. Trisomy 13
- D. Triploidy

3. Sonographic evaluation of the fetal nasal bone is performed primarily as a marker for which aneuploidy?

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

4. The classic second-trimester quad screen pattern in a fetus affected by trisomy 21 shows which of the following?

- A. Decreased AFP, decreased unconjugated estriol, elevated hCG, and elevated inhibin A
- B. Decreased AFP, decreased estriol, decreased hCG, and decreased inhibin A
- C. Elevated AFP, elevated estriol, elevated hCG, and elevated inhibin A
- D. Elevated AFP, decreased estriol, decreased hCG, and decreased inhibin A

5. A clenched fetal hand with overlapping index finger over the third finger is most characteristic of which aneuploidy?

- A. Trisomy 13
- B. Trisomy 18
- C. Triploidy
- D. Trisomy 21

6. Cord entanglement is a recognized complication of which type of twin pregnancy?

- A. Monochorionic monoamniotic
- B. Dichorionic diamniotic
- C. Dichorionic monoamniotic
- D. Monochorionic diamniotic

7. The Quintero staging system is used to grade the severity of which condition?

- A. Discordant fetal growth
- B. Selective intrauterine growth restriction
- C. Twin reversed arterial perfusion sequence
- D. Twin-to-twin transfusion syndrome

8. Twin reversed arterial perfusion (TRAP) sequence is characterized by which of the following?

- A. An acardiac twin perfused retrograde through artery-to-artery placental anastomoses by a pump twin
- B. Shared umbilical cord with cord entanglement
- C. Two separate placentas with vein-to-vein anastomoses
- D. Discordant cardiac size between two structurally normal twins

9. Counting yolk sacs in the first trimester is most useful for determining which feature of a twin pregnancy?

- A. Gestational age
- B. Chorionicity
- C. Zygosity
- D. Amnionicity

10. Twin-to-twin transfusion syndrome occurs exclusively in which type of twin pregnancy?

- A. Dichorionic
- B. Monochorionic
- C. Dizygotic
- D. Heterotopic

11. Which of the following is the most characteristic central nervous system finding of trisomy 18?

- A. Choroid plexus cyst
- B. Agenesis of the corpus callosum
- C. Holoprosencephaly
- D. Dandy-Walker malformation

12. Which of the following soft markers is most strongly associated with trisomy 21 when identified in isolation during the second trimester?

- A. Echogenic intracardiac focus
- B. Thickened nuchal fold
- C. Mild pyelectasis
- D. Single umbilical artery

13. In a fetus affected by trisomy 18, the first-trimester biochemistry pattern typically demonstrates which finding?

- A. Elevated free beta-hCG and elevated PAPP-A
- B. Elevated free beta-hCG and decreased PAPP-A
- C. Decreased free beta-hCG and decreased PAPP-A
- D. Normal free beta-hCG and normal PAPP-A

14. Which second-trimester sonographic soft marker is defined as a thickening of the skin at the back of the fetal neck measured in the suboccipitobregmatic plane?

- A. Nuchal translucency
- B. Nuchal fold
- C. Cystic hygroma
- D. Echogenic intracardiac focus

15. First-trimester nuchal translucency measurement is performed at what gestational age range?

- A. 11 weeks 0 days to 13 weeks 6 days
- B. 8 weeks 0 days to 10 weeks 6 days
- C. 16 weeks 0 days to 20 weeks 0 days
- D. 14 weeks 0 days to 16 weeks 6 days

16. Which combination of analytes is used in the first-trimester combined screen along with nuchal translucency?

- A. Inhibin A and AFP
- B. AFP, hCG, estriol, and inhibin A
- C. AFP and unconjugated estriol
- D. Free beta-hCG and PAPP-A

17. Determination of chorionicity in a twin pregnancy is most accurate when performed during which gestational window?

- A. First trimester
- B. Third trimester
- C. Late second trimester
- D. Early second trimester

18. In twin-to-twin transfusion syndrome, the donor twin classically demonstrates which sonographic finding?

- A. Cardiomegaly
- B. Oligohydramnios with a smaller fetus
- C. Polyhydramnios with a larger fetus
- D. Hydrops fetalis

19. In a fetus affected by trisomy 21, the typical first-trimester biochemistry pattern shows which of the following?

- A. Elevated free beta-hCG and elevated PAPP-A
- B. Decreased free beta-hCG and decreased PAPP-A
- C. Elevated free beta-hCG and decreased PAPP-A
- D. Decreased free beta-hCG and elevated PAPP-A

20. When establishing chorionicity in a twin pregnancy, sonographic identification of fetuses of different genders most reliably indicates which of the following?

- A. Monochorionic, monozygotic twins
- B. Dichorionic, dizygotic twins
- C. Monochorionic diamniotic twins
- D. Indeterminate chorionicity

21. In addition to aneuploidy, echogenic fetal bowel is associated with all of the following except which condition?

- A. Swallowed intra-amniotic blood
- B. Maternal type 1 diabetes mellitus
- C. Congenital cytomegalovirus infection
- D. Cystic fibrosis

22. Cell-free fetal DNA noninvasive prenatal screening primarily analyzes which biological substrate in the maternal sample?

- A. Intact fetal lymphocytes circulating in maternal blood
- B. Fetal red blood cells from the umbilical vein
- C. Amniocyte DNA from amniotic fluid
- D. Placental DNA fragments circulating in maternal plasma

23. Which of the following is the next best step when a thickened nuchal fold is identified in isolation during the second-trimester anatomy survey?

- A. Offer genetic counseling and diagnostic testing or cfDNA
- B. Repeat the nuchal fold measurement in three weeks
- C. Reassure the patient that this is a normal variant
- D. Recommend immediate cesarean delivery

24. A double-bubble sign in a second-trimester fetus most strongly suggests which combination?

- A. Duodenal atresia associated with trisomy 21
- B. Gastric outlet obstruction associated with Turner syndrome
- C. Esophageal atresia associated with trisomy 18
- D. Jejunal atresia associated with trisomy 13

25. Which finding on first-trimester sonography is the most reliable indicator of a dichorionic twin pregnancy?

- A. A single placenta with a thin membrane
- B. Absence of an inter-twin membrane
- C. Two yolk sacs in a single gestational sac
- D. Two separate gestational sacs with a thick dividing membrane