ANSWERS: CHAPTER 25

MATCHING

1. d  5. a  9. m  13. c
2. h  6. k  10. f  14. e
3. j  7. g  11. l  15. b
4. n  8. o  12. i

IMAGE LABELING

1. RUQ
2. LUQ
3. RLQ
4. LLQ
5. early decelerations
6. variable decelerations
7. late decelerations

MULTIPLE CHOICE

1. d  6. d  11. c  16. a
2. b  7. c  12. d  17. d
3. a  8. a  13. b  18. c
4. b  9. a  14. c  19. d
5. c  10. d  15. b  20. b

FILL-IN-THE-BLANK

1. kick counts
2. fetal asphyxia
3a. nonstress test (NST)
3b. oxytocin challenge test (OCT)
4. quickening
5. three
6. umbilical cord
7a. 2
7b. zero
8. delivery
9. 16 to 20
10a. two
10b. 20
11. below 32
12. nonreactive NST
13. hiccoughs
14. sagittal
15. fetal breathing
16a. movement
16b. vibroacoustic
16c. manual
16d. juice
17. movement
18a. diaphragmatic
18b. 30
19. 6 to 20
20. swallowing

SHORT ANSWER

1. Fetal Movements Three or more gross discrete body or limb movements in 30 minutes of observation.
Two or less gross body movements in 30 minutes of observation.

Fetal Tone One or more episodes of extension of a fetal extremity with return to flexion, or opening or closing of a hand.
Extremities in position of extension or partial flexion. Spine in position of extension. Fetal movement not followed by return to flexion.

2. Antenatal testing (BPP, NST, and OCT) have a wide application in high-risk pregnancies, particularly in fetuses at risk for in utero demise. In almost all circumstances, the testing is used to determine whether a fetus should be delivered or allowed to remain in utero. Therefore, this testing is only indicated in pregnancies in which delivery would be a reasonable option if the results of testing are worrisome. This means that it is never used at a gestational age before fetal viability.

3. BPP variables typically report irregularly opposite the way they appeared in fetal life. In the case of fetal hypoxia and acidemia, fetal heart rate reactivity, followed by fetal breathing, then gross fetal body movements, and finally fetal tone are affected. Note that if fetal tone is the only abnormal variable, the finding may be inaccurate.

4. The testing parameters of fetal motion, AFI, breathing, and heart rate can be affected by a multitude of factors. Operative manipulation and ingestion of sedative and alcohol may affect fetal breathing. Maternal dehydration, diabetes, and some medications will affect the AFV.

5. Umbilical venous pH falls significantly as the biophysical profile score falls. Fetal biophysical profile scores were compared with umbilical venous pH values. Discoveries show there are highly significant linear correlations between the biophysical profile score and the umbilical venous pH. A score of 0 out of 10 was always associated with a pH less than 7.20, and a score of 8 or 10 was always found to be associated with a pH greater than 7.25.
IMAGE EVALUATION/PATHOLOGY

1. The image is demonstrating a sagittal plane through the fetal chest and abdomen. In real-time observation of diaphragmatic movement is apparent. Movement of the chest, independent of the heart beat, and abdominal changes can be viewed offering opportunity to assess fetal breathing motions. S, stomach; H, heart; D, diaphragm.

2. Image A reveals a transverse fetal abdomen clearly displaying within normal limit kidneys, transverse spine and skin line, and indication of two legs. This view could display fetal breathing motions in real-time imaging. Image B clearly demonstrates a round fetal abdomen with stomach and spine anatomy. The measurements suggest a 31w6d abdominal circumference that must be correlated with at least a HC, BPD, and FL to determine growth normalcy. Three or more gross discrete body or limb movements in 30 minutes of observation earn a gross body movement BPP score of 2.

3. This image displays the correct method for obtaining a RUQ AFI measurement. Calipers are placed within the amniotic fluid in a vertical fashion. Color Doppler was used to verify the fluid pocket is clear of cord.

4. Subjectively (visually) the four quadrants labeled, Q1, Q2, Q3, and Q4 do not appear to offer a normal amniotic fluid volume with color Doppler. In fact, this study measured at a total of 1 cm.

5. The longitudinal fetal spine clearly demonstrates flexion and extension movement and rotational movements. Parasagittal images demonstrate fetal breathing if the diaphragm is viewed.

CASE STUDY

1. Maternal hypertension is frequently associated with IUGR, which is not suspected with this patient, and oligohydramnios. The previous recent growth scan demonstrated fetal measurements to be within normal. This current mBPP reveal an AFI of 19.9 cm, which decidedly is within a normal finding. Maternal hypertension has not affected the amniotic fluid level. A weekly mBPP should be scheduled.

2. Fetal movement of the hand should include, at minimum, one or more episodes of opening or closing of a hand, and legs should display three or more gross discrete limb movements in 30 minutes of observation. An episode of leg extension with return to flexion would score a 2.