ANSWERS: CHAPTER 5

MATCHING

1. m  6. q  11. o  16. j
2. c  7. k  12. b  17. e
3. p  8. a  13. l
4. f  9. i  14. h
5. n  10. g  15. d

IMAGE LABELING

1. false pelvis
2. true pelvis
3. pelvic outlet
4. linea terminalis (pelvic inlet)
5. rectus abdominis muscle
6. proximal rectus abdominis muscle (cut view)
7. rectus sheath
8. distal rectus abdominis muscle (cut view)
9. psoas major muscle
10. psoas minor muscle
11. cervix, plicae palmatae
12. vaginal fornices
13. fimbriae
14. site of ruptured follicle
15. maturing follicles
16. fallopian tube
17. ovary
18. follicular fluid
19. corpus luteum
20. developing follicles

MULTIPLE CHOICE

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

FILL-IN-THE-BLANK

1a. 32
1b. dehydrated
2a. premature rupture of membranes
2b. prepubertal
3a. weight-bearing bridge between the spine and lower limbs
3b. directs the pathway of the fetal head during childbirth
3c. protects reproductive and pelvic organs
4a. psoas
4b. rectus abdominis
5. piriformis
6. pelvic organs
7a. thick
7b. thin
8. urinary jets

SHORT ANSWER

1. The endocervical mucosa has a rich supply of mucous glands on the anterior and posterior surfaces. Mucus serves to impede upward migration of bacteria from the vagina into the uterus. In pregnancy, the mucosa of the endocervical canal undergoes hypertrophy and the glands produce a dense, sticky mucous plug known as the mucous plug of pregnancy, which effectively seals the uterus.

2. The false pelvis is known as the greater or major pelvis and is superior and anterior to the pelvic brim. It is differentiated from the true pelvis by an imaginary line (linea terminalis) extending from the sacral prominence (promontory) along the inner surface of the innominate bone down to the symphysis pubis anteriorly. The true pelvis (lesser or minor) is inferior to the linea terminalis and is inferior and posterior to the pelvic brim. It houses the urinary bladder and reproductive organs.

3. The pouch of Douglas (posterior cul-de-sac) is the most posterior and dependent portion of the peritoneal sac lining. Fluid originating anywhere in the peritoneal sac tends to collect in this most dependent portion. The space of Retzius is positioned between the pubic symphysis and urinary bladder, in a much less dependent position.
4. There are several possible explanations for a mass in the female patient void of uterus and ovaries. The bowel, especially if not peristalsing, is a consideration. A water enema administered with real time imaging can help distinguish it. Muscle also is suspect when a solid mass is noted, especially in the post hysterectomy/oophorectomy patient. The hook shape is seen with the iliopsoas muscle cross-sectional.

5. The most common and least invasive method to fill the urinary bladder is p.o (by mouth) fluid intake. Typically, in a well hydrated patient, 32 ounces of fluid will cause the urinary bladder to fill completely. Dehydrated patients may require more fluid. If a patient is unable to drink, bladder filling via a Foley catheter is an option.

**IMAGE EVALUATION/PATHOLOGY**

1. ovary
2. psoas major and iliac muscles
3. iliopsoas muscle complex
4. femoral nerve
5. anterior wall bladder reverberation
6. ureteric valve
7. corpus luteum angiogenesis (physiological process involving the growth of new blood cells from preexisting vessels, in this case, involving the corpus luteum)
8. hemorrhagic corpus luteum
9. fallopian tube

**CASE STUDY**

1. Based on clinical findings, ovarian torsion is a likely diagnosis. Transabdominal ultrasound and an endovaginal ultrasound are necessary to adequately visualize the ovaries. While in endovaginal mode, utilize spectral, color, and/or power Doppler to evaluate ovarian blood flow. After viewing the image, ovarian torsion is not possible because the ovary offers abundant vessels with blood flow using color Doppler technique. Appendicitis may be a more accurate diagnosis.

2. Symptoms of thick, dark facial hair and difficulty to lose weight are associated with polycystic ovarian syndrome (PCOS). This image demonstrates a polycystic pattern as seen by multiplanar (3-D) ultrasound. Note: In patients having polycystic ovarian syndrome, there are no changes in the ovarian arteries and intraovarian vascular resistance during the menstrual cycle.