ANSWERS: CHAPTER 12

MATCHING

1. b  9. cc  17. m  25. t
2. n 10. h  18. y  26. k
3. z 11. r  19. c  27. v
4. d 12. dd  20. s  28. l
5. p 13. e  21. x  29. w
6. bb 14. o  22. j  30. g
7. f 15. aa  23. u
8. q 16. a  24. i

IMAGE LABELING

1. gonadotropin deficiency, hyperprolactinemia
2. hypothalamus-pituitary hormones (via ovarian secretion)
3. pelvic inflammatory disease (PID); hydrosalpinx, fimbrial damage
4. premature menopause
5. endometrial adhesions
6. chronic cervicitis with abnormal mucus secretion
7. antisperm antibodies
8. endometritis
9. endometriosis
10. polycystic ovarian syndrome (PCOS) (Stein-Leventhal syndrome)
11. uterine corpus
12. cervical canal
13. cervical neck
14. spermatozoon
15. vagina
16. ovary
17. embryo, implanted
18. fallopian tube (oviduct)
19. fertilization site
20. fertilization
21. sperm cells
22. ovum
23. fimbriae
24. menstrual phase
25. proliferative phase, trilaminar
26. secretory phase
27. fallopian tube
28. ovary
29. uterine fundus
30. uterine body
31. cervix
32. vagina
33. intrauterine device, T shape
34. Lippes Loop
35. Dalkon shield
36. Copper-T
37. Copper-7

MULTIPLE CHOICE

1. c  8. c  15. a  22. a
2. a  9. d  16. b  23. c
3. d 10. b  17. a  24. a
4. c 11. d  18. b  25. d
5. b 12. a  19. c
6. b 13. c  20. d
7. a 14. d  21. d

FILL-IN-THE-BLANK

1a. subfertile
1b. infertile
2a. structural
2b. pathologies
2c. intercourse
3a. ovulation
4. 28
5a. PCOS
5b. increased
10a. PCOS
10b. increased
11a. basal
11b. functional
12. mid
13. Asherman syndrome
14a. first week
14b. mid week
15a. sterility
15b. subfertile
16a. density
16b. motility
16c. morphology/shape
17. “bag of worms”
18. hCG
19. 6
20a. three
20b. three
21. vaginal punctures
22. reduction/multifetal reduction
23a. ParaGard® (Copper) IUD
23b. Mirena® levonorgestrel-releasing IUD
24. expulsion/partial expulsion
25a. coil
25b. 3 to 6
26. removal
SHORT ANSWER

1. Ovarian reserve scrutinizes quantity and quality of a patient’s remaining follicles. This assessment is made through measurement of serum FSH and estradiol levels in the early follicular (day 3 of the ovarian cycle) period. Sonography may also help predict ovarian reserve by providing an ovarian volume and estimated baseline antral follicle count (BAFC).

2. Menstrual phase: Thin endometrium and physiologic blood (menses) of mixed echogenicity within the cavity.

Proliferative phase: Thickening endometrium, echogenic, and triple layer appearance.

Secretory phase: Thickest endometrium, homogenous, and hyperechoic double layer.

3. Because the female factor for infertility has been ruled out, and the male factor is determined to be a decreased sperm count, the process many couples and their physician will choose is stimulation of the ovarian follicles with IUI to follow. A second choice may be controlled follicle stimulation with IVF with ET, GIFT, ZIFT, or cryopreservation for future use.

4. IUD string retraction may occur into the cervix or uterus inhibiting the ability to locate it by touch. Sonography easily identifies IUD position, especially with 3-D/4-D imaging, which is quick to perform and assess location. If the IUD is not demonstrated within the endometrial cavity or uterine myometrium, radiography and possibly a CT scan need to be employed.

5. A ring-shaped IUD is widely used in China. It is comprised of stainless steel, and therefore, very evident on a radiograph. The patient should be questioned regarding travel to or living in China and implantation of an IUD.

IMAGE EVALUATION/PATHOLOGY

1. The image demonstrates a normal ovary with a Graafian follicle gathered by EV approach. Blood flow is not shown in this view.

2. This image reveals connective tissue in the central echogenic region (arrow) of the right ovary in a sagittal view. The TV scan shows multiple small antral follicles (stars) in the periphery of this ovary. Cursors measure the sagittal and AP dimensions as 4.65 cm × 1.44 cm, seen in the image right lower corner.

3. Image A shows a sagittal midline view of the uterus and endometrium in the menstrual phase. Image B shows a retroverted midline sagittal uterus and endometrium in the proliferative phase. A triple layer endometrium is seen in images B and C. Image C is a transverse view. Image D is demonstrating a secretory endometrium at 1.33 cm thick.

4. Intracavitary fluid (star) is seen fundally in the uterine endometrium and should be removed before embryo transfer. The hyperechoic line represents a transfer catheter (between arrows).

5. Image A is demonstrating a left lateral testicle with varicocele appearance (“bag of worms”). Application of the Valsalva maneuver is helpful when diagnosing varicocele. Measurement of three or more veins 3 mm or greater is diagnostic of varicocele whether visualized with or without the Valsalva maneuver. Measurements are necessary in this study to document the condition. Notice image B used Doppler to ensure blood flow in the heterogeneous region.

CASE STUDY

1. The image clearly defines a deployed IUD within normal position in the uterine endometrium. The cross bars are well-defined and within the confines of the proximal endometrium. The IUD string is visualized in a coiled position within the cervix, which is why it was not located vaginally by the patient or seen with the use of a speculum examination by the doctor. Depending on the patient’s desire, the string can be left as seen or gently pulled inferiorly using forceps, a cotton-tip swab, or a small “bottle-brush” medical tool.

2. The 3-D coronal view demonstrates the Essure® microinsert contraceptive device in the expected position of the right and left cornual aspect of the fallopian tube. Endometrium is displayed and depicts normalcy.