ANSWERS: CHAPTER 3

MATCHING

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

IMAGE LABELING

1A. Right hypochondriac
1B. Epigastric
1C. Left hypochondriac
1D. Left lumbar
1E. Umbilical
1F. Left inguinal
1G. Hypogastric
1H. Right inguinal
1I. Right lumbar
2A. Right upper quadrant
2B. Left upper quadrant
2C. Left lower quadrant
2D. Right lower quadrant
3A. Supracolic compartment
3B. Left paracolic gutter
3C. Left infracolic space
3D. Right infracolic space
3E. Right paracolic gutter
3F. Infracolic compartment

MULTIPLE CHOICE

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

FILL-IN-THE-BLANK

1. hypochondriac; lumbar; iliac; epigastric; umbilical; hypogastric
2. RUQ; LUQ; LLQ; RLQ
3. peritoneal cavity
4. peritoneal membrane
5. stomach
6. supracolic compartment; infracolic compartment
7. paracolic gutters
8. hepatorenal space/Morrison’s pouch
9. rectouterine space/Pouch of Douglas/posterior cul-de-sac
10. vesicouterine space/cul-de-sac
11. Transudative
12. Exudative
13. gas/air
14. hemoperitoneum; hematoma
15. Pseudomyxoma peritonei; gelatinous mucous
16. early; lymphocele
17. small bowel
18. lymphadenopathy; inflammatory
19. asbestos
20. diagnostic; therapeutic

SHORT ANSWER

1. The greater omentum helps prevent the parietal peritoneum, which lines the peritoneal cavity, from adhering to the visceral peritoneum, which lines the peritoneal organs. The omentum is mobile and can shift to surround areas of inflammation, helping to limit the spread of infection and malignant cells. It also helps provide a cushion for the abdominal organs and prevents the loss of heat from the abdomen.

2. The FAST examination is performed in trauma situations and may be performed by health care providers in the field or in the emergency room. During a FAST scan, longitudinal and transverse images are obtained of Morrison’s pouch, the posterior right hemidiaphragm/liver interface, the spleen/left kidney interface, and the pouch of Douglas. These images cover the main potential spaces that could accumulate fluid/blood in cases of trauma. Some institutions also include the paracolic gutters and solid organs such as the liver and spleen.

3. Ascites can be the result of many pathological processes, including portal hypertension, malignancy, congestive heart disease, and peritonitis. Ascites collects in the most gravity-dependent portions of the abdominal and pelvic cavities. When the patient is supine, those areas include Morrison’s pouch and the posterior cul-de-sacs in both the male and female. Ascites can collect in any potential space, including the paracolic gutters.

4. Sonographically, an abscess typically presents as a thick-walled fluid collection that may be anechoic, complex, or septated. A fluid-fluid level is frequently present. Blood flow should not be visible within the abscess. Air may be present and may cause “dirty” shadowing posterior to the mass. Due to its fluid content, an abscess may exhibit increased through transmission. An abscess can occur in any potential space but is usually adjacent to an inflamed organ or surgical site.

5. The peritoneal membrane divides the abdominal cavity into the peritoneal and retroperitoneal compartments. It secretes a small amount of fluid so that the organs can move freely without friction.
IMAGE EVALUATION/PATHOLOGY

1. Right subphrenic space; Morrison’s pouch; ascites

2. Lesser sac; pancreatic pseudocyst or fluid from gastric wall perforation

3. Pouch of Douglas; this space is the most gravity-dependent portion of the female pelvis when the patient is supine, so free fluid will commonly collect in this space.

4. Transudative ascites; portal hypertension, liver failure, congestive heart failure; bowel

5. Exudative ascites; loculated or septated; malignancy, inflammation

CASE STUDY

1. The patient has simple transudative ascites as a result of the liver disease and portal thrombosis. A pleural effusion is also noted. A therapeutic paracentesis could remove up to 6 L of fluid and could help relieve the patient’s symptoms of pain and abdominal distention, at least temporarily. Ascites as a result of liver disease usually returns after the procedure.