

Kaplan USMLE Step 1 prep: Woman complains of abdominal pain, nausea

JUN 22, 2020

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If you're preparing for the United States Medical Licensing Examination[®] (USMLE[®]) Step 1 exam, you might want to know which questions are most often missed by test-prep takers. Check out this example from Kaplan Medical, and read an expert explanation of the answer. Also check out all posts in this series.

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This month's stumper

A 19-year-old woman comes to the clinic because of abdominal pain and nausea. Her last menstrual period began seven days ago. She admits to having unprotected sexual intercourse. Her temperature is 38.6 °C (101.5 °F). Physical examination shows lower abdominal tenderness. Pelvic examination shows a mucopurulent discharge, adnexal tenderness, and tenderness with cervical motion. A pregnancy test is negative and leukocyte count is 14,000 cells/mm³.

Which of the following is most likely a complication of this disorder?

- A. Ascites.
- B. Cervical carcinoma.
- C. Exsanguination.

D. Infertility.

E. Pseudomyxoma peritonei.

The correct answer is D.

Kaplan Medical explains why

This patient has pelvic inflammatory disease (PID), which can involve the uterus, oviducts, ovaries and neighboring pelvic organs.

PID is classically caused by ascending infection with sexually transmitted agents such as *Neisseria gonorrhoeae* or *Chlamydia trachomatis*.

Symptoms include a mucopurulent cervicitis (often producing a vaginal discharge), abdominal pain, or abnormal vaginal bleeding. Fever, an elevated white count, and an elevated erythrocyte sedimentation rate may also be seen.

Therapy consists of antibiotics with activity against *N. gonorrhoeae*, *C. trachomatis*, vaginal anaerobes, and facultative gram-negative rods (e.g., ceftriaxone plus doxycycline with or without metronidazole).

Complications include infertility and ectopic pregnancy from tubal scarring and adhesions following salpingitis in PID. Bacteremia, peritonitis (because the fallopian tubes open into the pelvic cavity), and intestinal obstruction (secondary to peritonitis, inflammation, and adhesion formation in bowel loops near the adnexa) may also complicate this disorder.

Why the other answers are wrong

Choice A: Abdominal enlargement due to ascites is observed in advanced cases of ovarian carcinoma or portal hypertension.

Choice B: Cervical carcinoma is related to infection with certain high-risk strains of human papillomavirus (HPV), e.g., strains 16, 18 and 31. Cervical carcinoma can present with intermittent vaginal bleeding. Pap smears are mainly used for screening of cervical dysplasia and carcinoma. Although this patient has unprotected sexual intercourse and is at increased risk for acquiring HPV infection, HPV is not the cause of her symptoms.

Choice C: Exsanguination is a feared complication of a ruptured ectopic pregnancy.

Choice E: Pseudomyxoma peritonei is a very serious complication of mucinous tumors of the ovary or appendix.

Tips to remember

- | Suspect PID in a patient with lower abdominal pain, vaginal discharge, adnexal tenderness, and tenderness with cervical motion.
- | PID may be due to *N. gonorrhoeae*, *C. trachomatis*, vaginal anaerobes, and/or facultative

gram-negative rods.

Complications include sterility, ectopic tubal pregnancy, bacteremia, peritonitis, and intestinal obstruction.

For more prep questions on USMLE Steps 1, 2 and 3, view other posts in this series.