

Self-Assessment in Family Practice

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This section of the Journal is designed to present clinical problems which focus on patient management, problem solving, and other elements integral to family medicine. The intent of this section is aimed more at teaching and learning than self-assessment as an evaluation or scoring device. Reinforcement of major teaching points is therefore included through the further discussion and supplemental references which appear on the following pages. Critical comments relating to these self-assessment materials are invited and should be submitted as Letters to the Editor.

Questions 1-4 each contain five suggested answers. Choose the one best response to each question.

A 20-year-old female college student comes to your office with a complaint of vulvar itching and small ulcers and blisters on the labia that are extremely painful on micturition. This is the first time she has had these symptoms. Although she uses a contraceptive foam to avoid pregnancy, she has never had a pelvic examination.

Your examination reveals her to be febrile and to have herpetic vesicles and shallow ulcers on the labia and inside the vagina. There is also marked inguinal node tenderness and swelling. Your diagnosis is primary herpes genitalis infection.

Your care of this young woman will include counseling regarding her sexual activity and future need for pelvic examinations and Pap smears.

1. Which of the following is not considered to be carcinogenic in mammals?

- A. Metronidazole (Flagyl)
- B. Photosensitive dyes and ultraviolet light used in treating herpes virus infections
- C. Herpes virus type 2
- D. Trichomonal infection
- E. Estrogens

2. Which one of the following state-

ments about carcinoma of the cervix is incorrect?

- A. There are 7,500 female deaths in the United States each year due to carcinoma of the cervix.
 - B. The five-year survival for regionally invasive disease is 45 percent.
 - C. The natural history of the disease is such that carcinoma in situ takes one to three years to progress to invasive carcinoma of the cervix.
 - D. Screening programs can decrease the incidence of invasive carcinoma of the cervix by 50 percent.
 - E. Cancer of the cervix is most common in low socioeconomic class women.
3. The mean age for cervical dysplasia has decreased, and the peak incidence now falls in which age category?
- A. 55 to 64 years
 - B. 45 to 54 years
 - C. 35 to 44 years
 - D. 25 to 34 years
 - E. 15 to 24 years

4. The American Cancer Society made recent changes in its recommendations for screening for cervical cancer. One of the following is not a recommendation.

- A. Only sexually active women under 20 years of age require a Pap smear.
- B. Asymptomatic women, between 20 and 65 years of age should have two negative Pap

smears one year apart and then every third year.

C. Asymptomatic women, over 65 years of age, and with no risk factors require annual Pap smears.

D. Women at high risk of developing cervical cancer should have a Pap smear at one to three yearly intervals provided they have had two negative smears one year apart.

E. All women over the age of 40 years should have annual pelvic examinations.

Question 5 contains four suggested answers of which one or more is correct. Choose answer:

- A. if 1, 2, and 3 only are correct
- B. if 1 and 3 only are correct
- C. if 2 and 4 only are correct
- D. if 4 only is correct
- E. if all are correct

5. A cervical cytology report indicating mild dysplasia should prompt the physician to submit a repeat specimen after any infectious process has been adequately treated. If the sample again shows mild or more severe dysplasia, the patient should be referred for which of the following?

- 1. Cryosurgery
- 2. Cone biopsy of the cervix
- 3. Dilatation and curettage
- 4. Colposcopic examination

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Answers and Discussion

1. D. Cervical cancer is closely related to age at first intercourse and number of sexual partners. These factors are similar to those associated with an increased risk of venereal disease. Patients with antibodies to herpes virus type 2 are ten times more likely to have invasive cancer than women without antibodies to the virus.^{1,2} Kaufman and Rawls, in a review of the available data, conclude that there is a close association between herpes virus type 2 infection and the development of cervical cancer.³ There appears to be no such increase in women with trichomonal infection.

Recently, photosensitive dyes in conjunction with ultraviolet light have been shown to be carcinogenic. Metronidazole (Flagyl) fed to mice and rats in intermittent as well as continuous dosage schedules increases the incidence of pulmonary neoplasms, malignant lymphomas, and mammary tumors. Estrogens may increase the risk of endometrial cancer in postmenopausal women by a factor of 10 to 30.⁴ In another study, Antunes et al showed a six-fold increase.⁵

2. C. Invasive cancer of the cervix accounts for about 4 percent of all cancers diagnosed in women in the United States (16,000 new cases in 1979) and is responsible for about 3.5 percent of female cancer deaths (7,400 deaths in 1979).⁶

The five-year survival rate for carcinoma in situ is virtually 100 percent; for local invasive disease, 79 percent; and for regional invasive disease, 45 percent. The natural history of the disease suggests that carcinoma in situ may exist for 8 to 30 years before progressing to invasive carcinoma of the cervix.

Early detection of dysplasia and carcinoma in situ has decreased the incidence of invasive carcinoma of the cervix in populations where extensive screening has taken place.⁷⁻⁹

MacGregor and Teper showed the relationship of invasive carcinoma of the cervix to social class.⁷ The disease is also more common in women who had their first intercourse before 17 years of age (two to four times the risk of controls) and women who have multiple sexual partners (one to seven times the risk of controls).

3. E. The incidence of cervical cancer declined from 44 cases per 100,000 women in 1947 to 8.8 cases per 100,000 women in 1970. Cervical cancer mortality fell from 9.3 to 6.2 cases per 100,000 women during the period 1950 to 1969.⁹

It is a worrisome finding that although the overall incidence of and mortality from cancer of the cervix are declining, the peak age at which cervical dysplasia occurs is now in a younger age bracket (15 to 24 years). It has been suggested that part of the reason for this is increased promiscuity in this younger age group.

The mortality from cancer of the cervix has also increased in women in the age brackets 15 to 24 years and 25 to 34 years. In one study by Yule, these rates doubled between the years 1970 to 1976.¹⁰

4. C. The American Cancer Society recently made the following changes in its recommendation for screening for cervical cancer. All asymptomatic women aged 20 years and over and those under 20 years who are sexually active should have a Pap test annually for two negative examinations and then at least every three years until the age of 65

years.⁶ There is an extremely low incidence of cancer of the cervix in women over age 65 years who have been screened previously.

5. D. A colposcope allows binocular viewing of the cervix at a magnification of from 10 to 25 times. A skilled colposcopist will detect over 90 percent of all cases of cervical neoplasia.¹¹ This procedure can be completed in a relatively short period of time, is less expensive, and causes less morbidity than conization.¹²

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