

Carcinoma of the Cervix

Half of all cancers of the **cervix** (the lower part of the **uterus** [womb]) occur in women between the ages of 35 and 55 years. Every year more than 11 000 women in the United States are diagnosed with invasive cervical cancer, and nearly 4 000 will die from complications of this disease. Cervical cancer is preventable and curable if detected early. The November 21, 2007, issue of *JAMA* includes an article describing the use of careful follow-up and an imaging test called **fluorine-18-labeled deoxyglucose–positron-emission tomographic scan (FDG-PET)**, a nuclear medicine scan that detects uptake of glucose by tumor cells, to assess tumor response to therapy, to predict survival outcomes, and to detect early recurrence of tumor cells.

RISK FACTORS

- **Human papillomavirus infection**—various strains of the human papillomavirus (HPV), a sexually transmitted viral infection, play a role in causing most cases of cervical cancer. A vaccine is now available that has the potential to prevent HPV infection in women.
- **Sexual history**—multiple sexual partners, sexual activity in adolescent girls
- **Sexually transmitted diseases (STDs)**—chlamydia, gonorrhea, syphilis, or HIV/AIDS increase the chance of acquiring HPV
- **Weak immune system**, such as from HIV infection
- **Cigarette smoking**—tobacco use increases the risk of precancerous changes

DIAGNOSIS AND SCREENING TESTS

Regular screening for cervical cancer is recommended for all women. It should begin within 3 years of becoming sexually active or no later than age 21. In addition to a medical history and physical examination, screening may include

- **Papanicolaou (PAP) test**—a test to detect abnormal cells in the cervix
- **HPV DNA test**—a lab test that detects the most common types of HPV that are likely to lead to cervical cancer

If a woman has an abnormal PAP test result, additional tests are needed to confirm the diagnosis, determine the extent of the cancer, and direct treatment options.

- **Colposcopy**—a special microscope that examines the cervix for abnormal cells
- **Biopsy**—removal of small samples of tissue for examination
- Visual examination of the bladder and colon by special scopes to examine inside the bladder (**cytoscopy**) and the lower part of the large intestine (**proctoscopy**) to determine the extent and possible spread of cancer to surrounding organs.
- **Imaging studies**—chest x-ray, CT, MRI, and PET to determine the presence and potential spread of cancer cells

TREATMENT

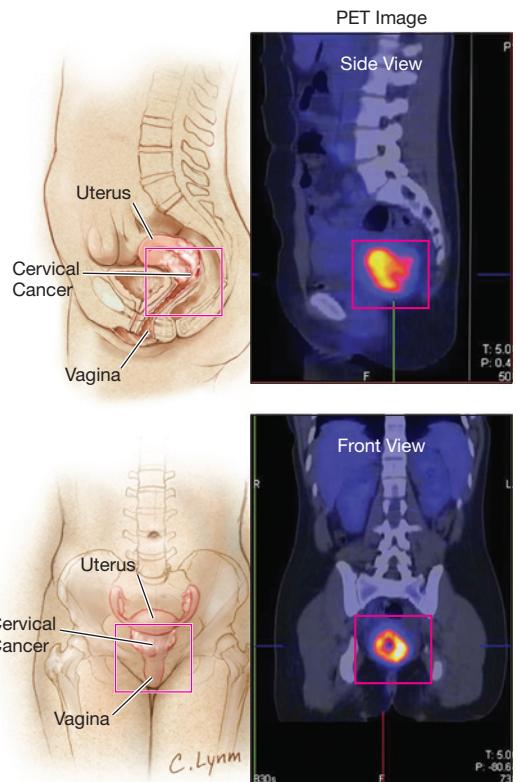
The choice of treatment and the long-term outcome of cancer of the cervix depend on the type and stage of cancer as well as physician recommendation and patient choice. The main treatment options for cervical cancer are surgery, radiation therapy, and chemotherapy.

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Red to yellow colors in the PET images (boxed areas) indicate regions of increased glucose uptake by tumor cells.

FOR MORE INFORMATION

- American Cancer Society
www.cancer.org
- National Women's Health Information Center
www.4woman.gov

INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA's Web site at www.jama.com. Many are available in English and Spanish. A Patient Page on human papillomavirus was published in the February 28, 2007, issue.

Sources: American Cancer Society, National Women's Health Information Center.

