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TREATMENT UPDATE

Cervical Cancer

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Treatment Update

Cervical Cancer

Table of Contents

Introduction 2

Diagnosing Cervical Cancer 4

Treating Cervical Cancer 5

Managing Treatment Side Effects 11

The HPV Vaccine 14

Frequently Asked Questions 15

Resources 17

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Thanks to major treatment advances, doctors can now prevent and treat cervical cancer more effectively.

Each year, about 13,000 women in the United States are diagnosed with cervical cancer. In the past 40 years, the number of cases of cervical cancer has decreased greatly. This is largely because more women are regularly screened with Pap tests. Improved screening methods have made it easier for doctors to find abnormal cells that can become cancerous, as well as cells that are already cancerous.

There are two main types of cervical cancer. The most common is squamous cell carcinoma, which makes up about 80 to 90 percent of all cervical cancers. The other is adenocarcinoma, which makes up 10 to 20 percent of all cervical cancers.

Cervical cancer almost always is caused by human papillomavirus (HPV) infection. Many adults have been infected with HPV at some time in their lives, but most infections clear up on their own. An HPV infection that does not go away can result in cervical cancer in some women who do not receive regular screening. However, most women infected with HPV do not develop cancer.

If a Pap test shows abnormal precancerous cells, the doctor also may recommend an HPV test to detect the virus. Precancerous cells look different from normal cells but have not yet become cancerous.

Factors that increase the risk of cervical cancer include smoking and an immune system that may be weakened by infection with HIV (the human immunodeficiency virus), for example. A common bacteria called chlamydia, which can infect the reproductive system through sexual contact, may increase the risk of cervical cancer.

There also is evidence that long-term use of birth control pills increases the risk of cervical cancer. The risk goes down after use of the pills is stopped.

Diagnosing Cervical Cancer

Cervical cancer usually is slow-growing and may not show any symptoms. The Pap test can find abnormal cells before they become cancerous.

During a pelvic exam, the doctor gently scrapes cells from the cervix, which are then looked at under a microscope. If unusual cells are found, the doctor may order HPV testing. If that test shows the presence of high-risk strains of HPV, the doctor will perform a colposcopy to look more closely at the cervix.

A colposcopy also may be done if the cells in the cervix appear to be abnormal (cervical neoplasia). The colposcope combines a bright light with a magnifying lens to make it easier to see the tissue. If there are abnormal cells in the cervix, the doctor will take a tissue sample (biopsy). Most of the time, this type of biopsy is performed in the doctor's office, usually under local anesthesia.

Treating Cervical Cancer

When found early, cervical cancer can be treated effectively. Precancerous cells usually can be removed without harming healthy cells. If the abnormal cells have become cancerous, the most common treatments are surgery, radiation and chemotherapy.

Radiation alone or surgery to remove part or all of the cervix may be used for a small tumor or early-stage cervical cancer. A combination of chemotherapy and radiation often is used for large tumors or more advanced cervical cancers. Choosing the best treatment also takes into account a woman's desire to have children. Some treatments can preserve fertility for future successful pregnancies.

A gynecologic oncologist—a doctor specializing in cancers of the female reproductive system, including the cervix, uterus (womb) and ovaries—should head the health care team for the best possible outcome.

Surgery

Several types of surgery may be used to treat cervical cancer or remove precancerous cells from the cervix:

Cryosurgery. Used to treat precancer of the cervix. Liquid nitrogen is used to freeze the abnormal cells and destroy them.

Laser surgery. Also used to treat precancer of the cervix. A focused laser beam is used to remove abnormal cells. This can be done in a doctor's office under local anesthesia.

LEEP (loop electrocautery excision procedure)/LLETZ (large loop excision of the transformation zone). Used to remove an abnormal area on the cervix seen during colposcopy. If there

are abnormal cells at the margin of the area removed, follow-up and more treatment may be needed.

Cone biopsy. A cone-shaped piece of tissue removed from the cervix. This is done with surgery, laser or the LEEP/LLETZ procedure. The cone of tissue removed is examined under the microscope by a pathologist. If the margins (outer edges) of the cone are "positive"—that is, if they contain cancerous or precancerous cells—some cancer (or precancer) may have been left behind, so follow-up is needed.

Hysterectomy. Surgery to remove the uterus in early-stage cervical cancer. This procedure can be done using a laparoscope (a thin tube with a camera at the end) or a robotic surgical technique and requires only a few small incisions instead of a larger cut in the abdomen.

Radical hysterectomy. Surgery for cancer that has spread beyond the cervix. The surgeon removes the uterus along with nearby tissues.

Trachelectomy. A type of surgery that removes the cervix and the upper part of the vagina, but not the uterus. It allows women with cervical cancer that has begun to spread to be treated while preserving their ability to have children. After a trachelectomy, a woman can become pregnant and deliver a healthy baby by cesarean section.

Radiation

Women with early cervical cancer may be treated with radiation or surgery. Radiation also may be used after surgery to remove any cancer cells that remain in the area. Women with cancer that has spread beyond the cervix may receive radiation and chemotherapy.

Several technologies have made radiation safer and more effective in women with cervical cancer:

External beam radiation therapy (EBRT) aims x-rays at the cervical cancer from outside the body. When radiation is used as the main treatment for cervical cancer, EBRT usually is combined with chemotherapy for advanced cervical cancer.

Brachytherapy involves placing a source of radiation in or near the cancer. For most women with cervical cancer, the radiation source is placed in a device inserted into the vagina and the cervix. This treatment is used in addition to EBRT. Low-dose brachytherapy is completed in just a few days in the hospital. High-dose brachytherapy is done outside the hospital over several treatments (often at least a week apart).

Chemotherapy and Targeted Treatments

Most women with cervical cancer are treated with surgery. However, some women may need to receive chemotherapy

before or after surgery. They also may receive chemoradiation treatment, which is a combination of chemotherapy and radiation. In addition to chemotherapy, doctors may prescribe targeted treatments, which focus on specific cell mechanisms thought to be important for the growth and survival of tumor cells. Unlike chemotherapy, targeted treatments are designed to spare healthy tissues and may cause less severe side effects than chemotherapy.

Chemotherapy and targeted treatments for cervical cancer include the following medications:

Bevacizumab (Avastin). In 2014, this targeted treatment became the first drug approved for late-stage cervical cancer since 2006. Bevacizumab helps prevent the growth of new blood vessels that tumors need to grow. Because it more than tripled the rate of response to a cervical cancer drug, a result learned from clinical trials, the U.S. Food and Drug Administration fast-tracked approval of bevacizumab for this type of cervical cancer.

Bevacizumab usually is combined with other drugs that target the cancer itself.

Cisplatin. This drug usually is combined with radiation for advanced-stage cervical cancer, alone or with fluorouracil. Cisplatin also may be used to treat cervical cancer that comes back (recurrent) or has spread outside of the pelvis. Cisplatin may be combined with other medications such as fluorouracil plus cetuximab (Erbitux) or docetaxel (Taxotere and others) plus paclitaxel (Taxol and others).

Carboplatin. Carboplatin usually is given intravenously (IV) through a blood vein. It is used in advanced-stage or recurrent cervical cancer.

The Importance of Clinical Trials

Clinical trials are the standard by which we measure the worth of new treatments and the quality of life of patients as they receive those treatments. For this reason, doctors and researchers urge people with cancer to take part in clinical trials.

Your doctor can guide you in making a decision about whether a clinical trial is right for you. Here are a few things that you should know:

- Often, people who take part in clinical trials gain access to and benefit from new treatments.
- Before you participate in a clinical trial, you will be fully informed as to the risks and benefits of the trial.
- Most clinical trials are designed to test a new treatment against a standard treatment to find out whether the new treatment has any added benefit.
- You can stop taking part in a clinical trial at any time for any reason.

Topotecan (Hycamtin and others). This medication usually is reserved for treating cervical cancer that no longer responds to other types of treatments.

Gemcitabine (Gemzar and others) and cetuximab. These targeted treatments can slow or stop the growth of cervical cancer cells.

Palliative Care

Palliative care focuses on a person's quality of life at any point during her illness. Although similar, palliative care differs from hospice care, which focuses on a person's quality of life at the end of life. People who receive palliative care still receive curative treatment.

Palliative care often begins with a person's diagnosis and can continue throughout cancer treatment and beyond. It is provided by a team of doctors, nurses and other health professionals who work toward the fostering of the person's physical, emotional, spiritual and practical well-being during an illness.

Managing Treatment Side Effects

If you experience any of these treatment side effects, talk to your doctor or nurse immediately:

- Fever or chills;
- Heavy bleeding or unusual vaginal discharge;
- Severe pain;
- Redness or discharge from incisions;
- Problems urinating or having a bowel movement; or
- Shortness of breath or chest pain.

You should also work with your health care team to manage the following possible life changes due to cancer treatment:

Premature Menopause and Sexual Side Effects

For premenopausal women under age 50 who have a hysterectomy that includes removal of the ovaries, the procedure may cause premature menopause. Estrogen therapy may be prescribed if the woman is young or experiences menopausal symptoms such as hot flashes.

Some women may also experience vaginal dryness after hysterectomy, which can affect their sexual well-being. Many effective prescription and over-the-counter treatments are available to correct vaginal dryness. Most of them are estrogen-based products in cream, gel or other forms. Discuss with your doctor the best option for you.

Before using complementary or alternative treatments such as vitamins or products containing plant-based estrogens, talk

Your Support Team

When you are diagnosed with cervical cancer, you're faced with a series of choices that will have a major effect on your life. Your health care team, family members and friends will likely be an invaluable source of support at this time. You also can turn to these resources:

Oncology social workers provide emotional support for people with cancer and their loved ones. These professionals can help you cope with the challenges of a cancer diagnosis and guide you to resources. Cancer*Care* offers free counseling from professional oncology social workers who understand the challenges faced by people with cancer and their caregivers. Cancer*Care*'s professional oncology social workers work with you one-on-one to develop strategies for coping with treatment and its side effects.

Oncology social workers also can help you communicate with your doctor and other members of your medical care team about the health care issues that are important to you.

Support groups provide a caring environment in which you can share your concerns with others in similar circumstances. Support group members come together to help one another, providing insights and suggestions on ways to cope. At Cancer*Care,* people with cancer and their families can participate in support groups in person, online or on the telephone.

Financial help is offered by a number of organizations to assist with cancer-related expenses such as transportation to treatment, child care or home care.

To learn more about how Cancer*Care* helps, call us at 800-813-HOPE (4673) or visit www.cancercare.org.

to your doctor about the product's safety and effectiveness. Avoid using certain products that may irritate the vagina, including douches (especially ones containing vinegar or yogurt), scented lotions, antibacterial or fragrant soaps, bubble baths and bath oils.

Changes in Fertility

Cancer treatments can affect your ability to conceive a child. It's important to talk to your doctor before treatment to discuss your options for preserving your fertility, even if you aren't sure you want to have children in the future. The surgical procedure called trachelectomy, discussed on page 6, can benefit some women with early cervical cancer who wish to become pregnant.

Maintaining Good Nutrition

Eating well is important before, during and after cancer treatment. You need the right amount of calories to maintain a healthy weight. You also need enough protein to keep up your strength. Eating well may help you feel better and have more energy.

Sometimes, especially during or soon after treatment, you may not feel like eating. Perhaps foods don't taste the same as they used to. Ask your doctor about speaking with a registered dietitian who can suggest ways to help you meet your nutritional needs.

The HPV Vaccine

HPV is the main cause of cervical cancer and abnormal cervical cells. Up to 80 percent of people have been exposed to HPV at some point in their lives.

Although HPV can be spread during vaginal, anal and oral sex, such contact does not have to occur for the infection to spread. All that is needed is skin-to-skin contact with an area of the body infected with HPV.

Women who have had more than one sex partner are more likely to get infected with HPV, but a woman who has had only one sex partner can still get infected. Even women who are not sexually active can become infected with HPV through skin-to-skin contact with an infected person.

Condoms provide some protection against HPV, but they do not completely prevent infection. Still, men who regularly use condoms are less likely to be infected with HPV and pass it on to their partners.

Vaccines are available that can protect against certain HPV infections. Some can also protect against infections with other HPV subtypes, including those that cause anal and genital warts. These vaccines only work to prevent HPV infection—they will not treat an infection already present. That is why, to be most effective, the HPV vaccine should be given before a person becomes exposed to HPV.

These vaccines help prevent precancers and cancers of the cervix. The HPV vaccination is recommended for preteen girls and boys 11 or 12 years old.

Frequently Asked Questions

Q. I'm 65 years old and have received Pap tests in the past. Do I need to continue this testing?

A. If you have had three negative Pap tests within a 10-year period and you are 65 to 70 years old, you probably can stop having these screening tests. If your doctor also has been screening you for HPV (human papillomavirus) and the tests are coming back negative, it is likely that it would be all right to stop having Pap tests.

Q. I am in a same-sex relationship, so do I need cervical cancer screening?

A. Because HPV is so widespread, women in the LGBT communities are at risk for cervical cancer, especially if one of the partners, or a partner's previous sex partner, has had some heterosexual exposure. So continued cervical cancer screening is recommended.

Q. I am not sexually active. Do I still need to get a Pap test?

A. Because it is possible to be exposed to HPV without sexual contact, it's a good idea to start having a Pap test at age 21. After that, doctors generally recommend getting tested every two or three years. After age 30, Pap smears are usually recommended every three years, or every five years when the Pap smear is combined with an HPV test.

Resources

Cancer*Care*®
800-813-HOPE (4673)
www.cancercare.org

American Cancer Society
800-227-2345
www.cancer.org

Cancer.Net
www.cancer.net

Foundation for Women's Cancer
312-578-1439
www.foundationforwomenscancer.org

HysterSisters
www.hystersisters.com

National Cancer Institute
800-422-6237
www.cancer.gov/cancertopics/types/cervical

National Cervical Cancer Coalition
800-685-5531
www.nccc-online.org

National Women's Health Information Center
800-994-9662
www.womenshealth.gov

Society of Gynecologic Oncology
312-235-4060
www.sgo.org/clinical-practice/management/survivorship-toolkit

CLINICAL TRIALS WEBSITES

Coalition of Cancer Cooperative Groups
215-789-3600
www.CancerTrialsHelp.org

EmergingMed
877-601-8601
www.emergingmed.com

National Cancer Institute
800-422-6237
www.cancer.gov/clinicaltrials

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