



WAYS TO DEVELOP AND TREAT CERVICAL CANCER AROUND THE WORLD

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Annotation. Cancer is a large group of diseases that can start in almost any organ or tissue of the body when abnormal cells grow uncontrollably. Globally, cervical cancer is the fourth most common cancer in females, with around 660 000 new cases in 2022. The most common cervical cancer is squamous cell carcinoma, accounting for 70% of cases. Adenocarcinoma is less common (about 25% of cases) and more difficult to diagnose because it starts higher in the cervix

Key words. Cancer, immune system, reproductive, obesity, HPV, uterus, vagina, infection, vaccination, condoms, hysterectomy, abdomen, cervix, rectum, chemotherapy.

Annotatsiya. Saraton - bu g'ayritabiyy hujayralar nazoratsiz o'sishi bilan tananing deyarli har qanday organi yoki to'qimalarida boshlanishi mumkin bo'lgan katta kasalliklar guruhidir. Juhon miqyosida bachadon bo'yni saratoni ayollarda eng ko'p uchraydigan to'rtinchi saraton hisoblanadi, 2022 yilda taxminan 660 000 yangi holat. Bachadon bo'yni saratoni eng keng tarqalgan skuamoz hujayrali karsinoma bo'lib, holatlarning 70% ni tashkil qiladi.



Adenokarsinoma kamroq tarqalgan (taxminan 25% hollarda) va tashxis qo'yish qiyinroq, chunki u bachadon bo'yni yuqoriroqda boshlanadi.

Kalit so'zlar. Saraton, immun tizimi, reproduktiv, semizlik, HPV, bachadon, qin, infektsiya, emlash, prezervativ, histerektomiya, qorin bo'shlig'i, bachadon bo'yni, to'g'ri ichak, kimyoterapiya.

Аннотация. Рак — это большая группа заболеваний, которые могут начаться практически в любом органе или ткани организма, когда аномальные клетки бесконтрольно растут. Во всем мире рак шейки матки является четвертым по распространенности видом рака у женщин: в 2022 году было зарегистрировано около 660 000 новых случаев. Наиболее распространенным раком шейки матки является плоскоклеточный рак, на который приходится 70% случаев. Аденокарцинома встречается реже (около 25% случаев) и ее труднее диагностировать, поскольку она начинается выше в шейке матки.

Ключевые слова. Рак, иммунная система, репродуктивная система, ожирение, ВПЧ, матка, влагалище, инфекция, вакцинация, презервативы, гистерэктомия, брюшная полость, шейка матки, прямая кишка, химиотерапия.

Introduction

Cervical cancer is cancer that starts in the cells of the cervix. The cervix is the lower, narrow end of the uterus (womb). The cervix connects the uterus to the vagina (birth canal). Cervical cancer usually develops slowly over time. Before cancer appears in the cervix, the cells of the cervix go through changes known as



dysplasia, in which abnormal cells begin to appear in the cervical tissue. Over time, if not destroyed or removed, the abnormal cells may become cancer cells and start to grow and spread more deeply into the cervix and to surrounding area. Two high-risk types, HPV 16 and HPV 18, cause 70% of cervical cancers worldwide. Most HPV infections go away on people's within a year or two as the immune system controls the infection. These short-term infections do not cause cancer. When a high-risk HPV infection lasts for years, it can lead to changes in the cervical cells, resulting in a precancerous lesion.

Risk factors which can lead to cervical cancer:

1. Having a weakened immune system. This can lower the body's ability to fight an HPV infection. HPV infections are more likely to be persistent and progress to cancer in people who are immunocompromised than in people who are not immunocompromised

2. Smoking or breathing in secondhand smoke. People who smoke or breathe in secondhand smoke have an increased risk of developing cervical cancer

3. Reproductive factors. Both the use of oral contraceptives (birth control pills) and giving birth to many children are associated with an increased risk of cervical cancer

4. Obesity. Cervical cancer screening may be more difficult in those with obesity, leading to lower detection of precancers and a higher risk of cancer.

Typically, it takes 15–20 years for abnormal cells to become cancer, but in women with weakened immune systems, such as untreated HIV, this process can be faster and take 5–10 years. Risk factors for cancer progression include the grade of oncogenicity of the HPV type, immune status, the presence of other sexually transmitted infections, and other factors such as diet and exercise.



transmitted infections, number of births, young age at first pregnancy, hormonal contraceptive use, and smoking.....¹

Cervical cancer is preventable. Cervical cancer is highly preventable and highly curable if caught early. Nearly all cervical cancers could be prevented by HPV vaccination, routine cervical cancer screening, and appropriate follow-up treatment when needed.

HPV vaccination. HPV vaccination is a safe and effective way to help prevent cervical cancer. Gardasil 9 is the FDA-approved vaccine for females and males aged 9 to 45 in the United States. Gardasil 9 is approved to prevent precancers and cancers caused by seven cancer-causing HPV types (16, 18, 31, 33, 45, 52, and 58) and to prevent genital warts caused by HPV types 6 and 11. The HPV vaccine does not treat an existing HPV infection

Cervical cancer screening. Because HPV vaccination doesn't protect against all HPV types that can cause cervical cancer, getting screened at regular intervals is still important.

Two widely used screening tests are HPV tests and cytology tests (also known as Pap test or Pap smear). These tests can find high-risk HPV infections and abnormal cell changes and precancers that can be treated before they turn into cancer. So it is important for people with a cervix to have regular screening tests starting in their 20s. Learn more about screening with the HPV test and Pap test..

For cervical cancer screening to be effective, people need to get timely screening and follow up of abnormal test results. Because of social, environmental,



and economic disadvantages, certain groups may have difficulty accessing health care and, as a result, bear a disproportionate burden of cervical cancer.

Condoms. Condoms, which prevent some sexually transmitted diseases, can decrease the risk of HPV transmission. However, they do not completely prevent it. Therefore, exposure to HPV is still possible in areas that are not covered by the condom.

Treatment

Depending on the type and stage of your cancer, you may need more than one type of treatment. For the earliest stages of cervical cancer, either surgery or radiation combined with chemo may be used. For later stages, radiation combined with chemo is usually the main treatment. Chemo (by itself) is often used to treat advanced cervical cancer.....²

Different types of treatment are available for cervical cancer. You and your cancer care team will work together to decide your treatment plan, which may include more than one type of treatment. Many factors will be considered, such as the stage of the cancer, your overall health, and your preferences. Your treatment plan will include information about your cancer, the goals of treatment, the treatment options and possible side effects, and the expected length of treatment.

Surgery. Surgery is often the main treatment for cervical cancer, especially if the cancer is found early..

There are several surgeries used to treat cervical cancer. Different surgeries involve removing:

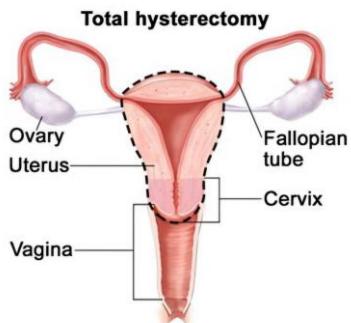
<https://www.cancer.org/cancer/types/cervical-cancer/treating.html>

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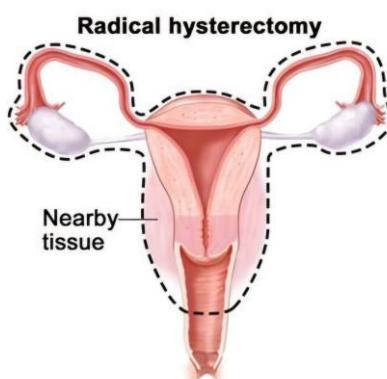
- part of the cervix – only possible if the cancer is very small
- the cervix, and sometimes the upper part of the vagina – the womb is not removed, so it's possible to get pregnant in the future
 - the cervix, upper part of the vagina and the womb (hysterectomy) – can include removing the ovaries and fallopian tubes
 - the cervix, womb, ovaries and fallopian tubes (if they have not already been removed), and all or parts of the bladder, bowel, vagina or rectum – this is only offered if the cancer has come back and other treatment is not possible....
- **Hysterectomy.** A hysterectomy is surgery to remove the uterus. As a treatment for cervical cancer, the cervix, and sometimes the surrounding structures, are removed. Several types of hysterectomy may be used to treat cervical cancer:

Total hysterectomy removes the uterus and the cervix. When the surgery is done entirely through the vagina (with no incisions on the abdomen) and the uterus and cervix are removed through the vagina, the operation is called a total vaginal hysterectomy. If the surgery is done through a large incision on the abdomen (either vertical or horizontal) and the uterus and cervix are removed through this incision, the operation is called a total abdominal hysterectomy. If the surgery is done through small incisions on the abdomen, the operation is called a total laparoscopic hysterectomy. The uterus and cervix are usually taken out through the vagina, although sometimes an abdominal incision is made to remove the uterus and cervix.



Radical hysterectomy removes the uterus, cervix, part of the vagina, and a wide area of ligaments and tissues around these organs. The ovaries, fallopian tubes, or nearby lymph nodes may also be removed.

Modified radical hysterectomy removes the uterus, cervix, upper part of the vagina, and ligaments and tissues that closely surround these organs. This type of surgery removes fewer tissues and/or organs than radical hysterectomy. The ovaries, fallopian tubes, or nearby lymph nodes may also be removed.



Around 3,300 women are diagnosed with cervical cancer each year in the UK (2017-2019). Sadly, there are around 860 yearly UK deaths from the disease (2018-2019, 2021). Since 1999, doctors have treated it with a course of chemoradiation (CRT), a combination of chemotherapy and radiotherapy. The new



study shows that six weeks of induction chemotherapy before CRT helps more people survive without their cancer returning .

After 5 years, 80% of trial participants who received induction chemotherapy followed by CRT were alive and 73% had not seen their cancer return or spread. By contrast, 72% of those who only received standard treatment were alive and 64% had not seen their cancer return or spread .

“Timing is everything when you’re treating cancer,” said Dr Iain Foulkes, our executive director of research and innovation. “The simple act of adding induction chemotherapy to the start of chemoradiation treatment for cervical cancer has delivered remarkable results in this trial ”.³

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