

Cervical Cancer

Patient Information Series – What you should know, what you should ask.

What is cervical cancer?

Cervical cancer is a tumour arising in the cervix of the uterus. It is the fourth most common cancer among women worldwide. There are two most common types: squamous cell carcinoma and adenocarcinoma. It usually affects women in their six decade of life, however pre-cancerous lesions usually develop in younger patients.

What causes cervical cancer?

A large majority of cervical cancers (more than 95%) are due to a viral infection caused by human papillomavirus (HPV). This virus is usually sexually transmitted. It is estimated that around 80% of men and women will be infected with the virus along their lives, but in the great majority of cases the infection spontaneously resolves. However, in some women HPV infection may become chronic and progress to pre-cancerous lesions, ultimately resulting in cervical cancer, especially if no treatment is administered. It takes 15 to 20 years for cervical cancer to develop in healthy women, although it can take less in women with compromised immune systems, particularly HIV.

What are the most common symptoms?

Women with HPV infection and pre-cancerous lesions are often asymptomatic. Symptoms of early-stage cancer may include light and irregular bleeding, especially after sexual intercourse and abnormal vaginal discharge, sometimes malodorous. As cervical cancer progresses, more severe and constitutional symptoms can appear, such as pelvic or back pain, weight loss, tiredness, loss of appetite and vaginal discomfort.

Can cervical cancer be prevented?

Nowadays there are effective strategies that can prevent cervical cancers. They include vaccination against HPV as well as screening and treatment of pre-cancerous lesions.

HPV vaccines works best if administered prior to exposure to HPV (before the beginning of sexual life). However, vaccination in later age, even in women with history of HPV related lesions, can also prevent subsequent infection and cervical disease.

Many developed countries have established cervical cancer screening programs. This usually involves testing for HPV infection and/or searching for lesions caused by the virus. The sample is mostly acquired during a gynecologic examination where a pap-smear is performed. Cervical cancer can also be detected in the screening programs.

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How is cervical cancer diagnosed?

When HPV and related lesions are detected during screening, women are referred for a diagnostic work-up. This includes direct inspection of the cervix (i.e. colposcopy) and biopsy of suspected lesions in order to get histological confirmation and a definitive diagnosis. When cervical cancer is detected, imaging is important to stage the disease. Ultrasound performed by an expert sonographer is an effective tool to clarify the extent of the cervical cancer in the pelvis (lymph nodes involvement and tumour spreading to other regions).

Magnetic Resonance Imaging (MRI), Computed Tomography (CT-scan) and Positron Emission Tomography (PET-CT) are other exams that are useful to assess the disease.

What are the treatment options?

The treatment for patients with cervical cancer depends on the extent of the disease and patient factors such as general health, whether you have been through the menopause or wish to get pregnant in the future. It can include surgery or radiotherapy usually in combination with chemotherapy or only systemic treatment composed by chemotherapy ± biologic drugs.

Most cancers of the cervix are diagnosed at an early stage. Surgery is the main treatment but radiotherapy or chemoradiation (radiotherapy given with chemotherapy) is sometimes used instead of surgery.

Surgery usually includes removal of the uterus, but a fertility-sparing surgery (i.e., removing just the cervix or a portion of it) can also be an option for those women that still want to have children.

Women with locally advanced disease start treatment with primary chemoradiation, which includes periodic administration of intravenous medication at the same time of radiation therapy.

Cervical cancer radiation therapy involves external radiation and brachytherapy. Brachytherapy is the local application of radiation to the cervix and vagina. It allows the maximization of the radiation dose to the cervix while sparing the surrounding normal tissue.

When the cancer has spread to distant parts of the body such as the liver or lungs, chemotherapy alone or in combination with biologic drug are used aiming to shrink and control the cancer and relieve symptoms. This is called palliative treatment.

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What is the follow-up after treatment?

Women treated for cervical cancer need to have regular follow-up appointments. These may include questioning about your general health, the presence of symptoms, or treatment related side-effects and a physical exam. Sometimes you may also get blood samples and imaging exams such as ultrasound scans, chest X-ray, MRI, or CT-Scan. The follow-up strategy should be individualized in terms of intensity, duration and procedures, taking into account individual risk assessment.

What other questions should I ask?

- How advanced is my cancer?
- Should I get surgery?
- Should I get radiotherapy?
- Should I get chemotherapy or biologic drugs treatment?
- What are the chances of cure?
- What are the side-effects that can happen with the treatments?
- Which symptoms should warn me about possible tumour recurrence?

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