

Cervical Cancer

The cervix is a narrow region at the lower end of the uterus, connecting the rest of the uterus to the vagina. The cervix is a dynamic structure that narrows and stretches throughout each menstrual cycle, and during childbirth stretches to its maximum of up to 10 cm. Malignant growth within the cervix, or cervical cancer, is regarded to be the second most common cancer seen among women, and is also the fifth leading cause of death among women due to cancer. The disease starts with certain pre-cancerous changes taking place in the cervical tissue. Most of these pre-cancerous lesions are harmless, and revert back to normal tissues with time. However, some of them may develop into cancerous lesions.

Generally, cervical cancer is slow growing, and shows almost no symptoms early on. Vaginal bleeding or discharge could be an early sign, but can be easily missed. It is only in more advanced stages of the cancer that signs such as heavy vaginal bleeding, weight loss, leakage of urine, pelvic, back, and leg pain become obvious. Thankfully, regular screening can identify cervical cancer even in the initial pre-cancerous stage.

Risk Factors

Human papilloma virus infection: The most important risk factor for cervical cancer is infection by the human papilloma virus (HPV). HPV is one of the most common sexually transmitted infections that affects both men and women and is passed from one person to another during sexual or skin-to-skin contacts with areas of the body infected with HPV. Also, other sexually transmitted agents, such as Chlamydia trachomatis or herpes simplex virus-2 (HSV-2), can increase the risk of having cervical cancer. Surely, this risk increases with co-infection with HPV.

Immunosuppression: Women with weak immune system such as those with HIV/AIDS, and those who are taking immunosuppressive drugs after an organ transplant, are more susceptible to acquiring HPV infection which may increase the risk of cervical cancer.

Oral contraceptives: There is evidence that long-term use (more than five years) of oral contraceptives increases the risk of development cervical cancer. Research suggests that the risk increases with prolonged use of oral contraceptives, but the risk returns to normal 10 years after discontinuing their use.

Multiple full-term pregnancies: Women who have had three or more full-term pregnancies have an increased risk of developing cervical cancer.

Young age at the first full-term pregnancy: Women who give birth to the first child at age younger than 17 years have a higher risk of development cervical cancer, compared to those who have had the first child at age 25 years or older.

Diet: Diets low in fruits and vegetables increase the risk of having cervical cancer.

Smoking: Smoking is strongly associated with a higher risk for development of cervical cancer. Studies show that women who smoke are about twice as likely to develop cervical cancer as non-smokers.

Diethylstilbestrol (DES): DES is a hormonal drug and was widely prescribed to pregnant women to help prevent miscarriage between 1983 and 1971. The daughters of these women face a higher risk for cervical cancer. DES is no longer prescribed.

Low socioeconomic status: It is believed that women with low socioeconomic status are at an increased risk for development cervical cancer due to restricted access to health care services, poor nutrition, and a low level of awareness about health issues and preventive behavior.

Genetic: Women have a higher risk of cervical cancer if they have a first-degree relative (mother, sister) who has had cervical cancer.

Diagnosis and Management

Early diagnosis of cervical cancer is decisive in the success of the treatment. A Papanicolaou test, more commonly known as a Pap smear, is collected to determine the state of cervical cells. A biopsy is needed to confirm the diagnosis of cervical cancer. The specimen is analyzed to evaluate the degree of change affecting the cells of the cervix and the extent of the spread. If the deeper layers of the cervix and or other organs are affected, the diagnosis of invasive cervical cancer is made and blood tests and X-rays usually follow.

The choices of treatment are weighed out with regards to the patient's age, health and family plan and the results of the biopsy. If the biopsy shows normal cells in its deepest layer, no further treatment is prescribed and the cervix is monitored with regular Pap smears. If precancerous or cancerous changes are observed beyond the scope of the biopsy, methods such as cauterization, freezing or laser surgery may be used to remove the abnormal tissues. Patients with cancerous cells spreading inside the opening of the cervix, out of child bearing age or that do not wish to have children in the future, may choose to undergo hysterectomy to remove the cervix. Chemotherapy and radiation are applied in cases of invasive cancer, where cancerous changes have spread out to other tissues and/or organs.

Cervical Cancer in Arab Populations

In most of the Arab countries, including Algeria, Lebanon, Libya, Morocco, Oman, Tunisia, Sudan, and the UAE, cervical cancer is the second most common malignancy seen in women. In Mauritania, however, it is the most common cancer seen in women. One of the most common problems associated with cervical cancer in Arab societies is the lack of awareness among women about screening programs. In most Arab countries, women were found to have very little knowledge about Pap smear tests, with most women never having had smears. Not surprisingly, most patients in these countries have been found to present with advanced stage of the disease. Interestingly, even a large proportion of health care practitioners were found not to have had a Pap smear. These findings have raised the need for an intensive education and awareness program on screening and preventive programs for cervical cancer.

Risk factors for cervical cancer in Arab populations include HPV infection (mainly HPV types 16 and 18), early marriage, more pregnancies, poor sanitation, and living in a rural environment. In addition, the practice of female circumcision, common in some Arab countries, may pose challenges for cervical cancer treatment.

Age-standardized death rates from cervical cancer by country (per 100,000 inhabitants) according to WHO statistics for year 2004. Darker areas indicate higher rates.

