

HPV and the Link to Cervical Cancer

By Rebeca Schiller

Imagine a virus with a family tree with multiple trunks and branches going back thousands of years, and thrives as long as human beings continue to be intimate. Today, we know this ancient virus as the human papillomavirus or HPV.

The Centers of Disease Control and Prevention (CDC) report that 79 million Americans are currently infected with HPV, and 14 million people become newly infected each year. HPV is so common that the majority of sexually active woman will get at least one of its 150 sub-types at some point that might cause a number of health problems like cervical cancer and others cancers, including cancer of the vulva, vagina and anus.

Dr. Yelda Nouri of North Shore Hematology Oncology Associates notes that just because a patient has HPV doesn't mean that she will develop cervical cancer. "It's persistent HPV infection in those patients who can't clear it who will develop the disease."

Dr. Paul Liu, director of the gynecology/oncology division at Nassau University Medical Center says the primary culprits that cause malignancy are sub-types 16 and 18 of the HPV virus that are considered high-risk, causing both low and high grade cervical abnormalities. Type 16 is the cause of 50 percent of cervical cancers and types 16 and 18 together are

found 70 percent of the time in the general population who are infected with the virus.

However, there are individuals who can clear the virus, meaning that it is no longer detectable. "That usually happens before the age of 30. If they have not cleared it by then, it continues to be expressed and it places them at risk of developing malignancy related to HPV," said Dr. Eva Chalas, chief of gynecological oncology and director of clinical cancer services at Winthrop University Hospital.

Unfortunately, the majority of women won't know if they are infected with HPV because it is asymptomatic. Patients should see their gynecologists for an evaluation if they discover any suspicious changes like watery vaginal discharge, bleeding after intercourse or spotting.

To determine any abnormalities, a Pap test will be conducted to establish if there are any worrisome cellular changes in the cervix. An HPV test will also be performed to check to see if the virus is present.

If cancer is diagnosed, eradication depends on the stage of the disease. For early stage cervical cancer, when child bearing is still under consideration, a radical trachelectomy removes the cervix and the upper part of the vagina but not the uterus. Other options for women no longer wanting

To decrease the prevalence of HPV and ultimately cervical or other cancers, the following guidelines are recommended:

- **Vaccines.** In the United States, the Advisory Committee on Immunization Practices (ACIP) recommends girls and boys aged 11 or 12 should be vaccinated against HPV. The vaccine is also recommended for girls in their teens and young women up to the age of 26 who did not receive it when they were younger, and

teenage boys and young men up to the age of 21. Dr. Chalas notes that it is important to protect children from HPV infection, but it also opens the door to a discussion about safe sex.

- **Advocating safe sex.** Dr Nouri says, "I think it is important to advocate to our younger audience that they take certain precaution to not engage in sexual activity at such a young age, to choose partners wisely, and how they can help maintain their health.

- **Use condoms.** Use latex condoms every time you have sex. This lowers the chances of being infected by HPV and other sexually transmitted diseases. But, be aware the virus—in areas not covered by a condom—can still infect you.

- **Get screened for cervical cancer.** Routine pelvic exams for women 21 to 65 are recommended for early detection.



children might be a simple or radical hysterectomy depending on the extent of the cancer. In the case of older women who are not able to go through surgery safely or who have other medical conditions, radiation is an option. A combination of radiation and chemotherapy is recommended for patients with advanced stages of cancer, according to Dr. Chalas.

For individuals with precancerous lesions on the cervix—where there is no penetration of the cells to the underlying tissue—local treatments like deep conization or loop electrosurgical excision procedure (LEEP) removes the abnormal cluster of cells, decreasing the risk the disease will return. Follow-up post-procedure for

these patients include annual pelvic exams. "Individuals who have cleared HPV can have surveillance according to the schedule that is recommended by the U.S. Preventive Services Task Force. Three serial annual [Pap smear] negatives and then you can move on to five years. What the public should know is that these are just recommended guidelines and some times physicians will make other recommendations to individuals depending on their history, background and what they find. The general guidelines are very liberal, but those are guidelines for individuals that do not harbor high-risk HPV in their system," said Dr. Liu.