

Cervical cancer-causing virus linked to other cancers and diseases

by Eric Michael Santos

The virus enters its host's skin. Once inside, it bides its time, patiently waiting for the opportune moment when its host's defenses are weakened and other favorable conditions for its proliferation are present. With time, the virus is able to sneak into the chromosomes of epithelial cells. It corrupts its host's cell replication process, tricking the colonized epithelial cells to mass-produce cells that bear the virus's genetic imprint. The invasion has begun, the seeds of cancer sown.

"Infection with the human papillomavirus or HPV causes abnormal changes in cells, which can lead to several forms of cancer," says Dr. Sybil Lizanne R. Bravo, consultant, UP-PGH Department of Obstetrics and Gynecology, Section of Infectious Diseases.

While these abnormal cellular changes usually take years and most HPV infections do not progress to cancer,¹ those that do inflict suffering to patients and their family.

Not just cervical cancer

Over 100 types of HPV have been identified,² about 40 of which infect the anal and genital areas with approximately 15 to 20 types proven to cause cancer.^{2,3} Much of the media and public attention has been focused on the link between HPV infection and cervical cancer. And rightfully so—100% of cervical cancer cases worldwide (almost 500,000 cases yearly) is caused by HPV.⁴ However, HPV infection also plays an important role in the development of other cancers: 40% of vulvar and vaginal cases; 90% of anal cancer cases; 40% of penile cancer cases; 12% of oropharynx cancer cases; and 3% of mouth cancer cases can be attributed to cancer-causing HPV types.⁴

Vulvar and vaginal cancers

Women diagnosed with vulvar cancer usually have a history of genital warts, which are caused by HPV as well.^{5,6} The vulva includes the inner and outer lips of the vagina, the clitoris (sensitive tissue between the lips), and the opening of the vagina and its glands.[⊕] Possible signs include a lump in the vulva, persistent itching in the vulvar area, bleeding not related to menstruation, and tenderness in the vulvar area.⁷

Vaginal cancer when found in the early stages can be cured. While it often does not cause early symptoms, it may be found during a routine Pap test.[▽] Possible

⊕ Reference #7

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signs include bleeding or discharge not related to menstrual periods, pain during sexual intercourse, a lump in the vagina, and pain in the pelvic area.⁹

There are two main types of vaginal cancer. Cancer that forms in squamous cells, the thin, flat cells lining the vagina is called squamous cell vaginal cancer. It spreads slowly and usually stays near the vagina, but may spread to the lungs and liver. This is the most common type of vaginal cancer. It is found most often in women aged 60 or older. Cancer that begins in glandular cells of the vagina is called adenocarcinoma. Adenocarcinoma is more likely than squamous cell cancer to spread to the lungs and lymph nodes. It is found most often in women aged 30 or younger.⁹

HPV infection may increase the risk of developing penile cancer

Possible signs include redness, irritation, sore or a lump on the penis, discharge, and bleeding.⁹

“Anal cancer is often seen in HIV-positive patients and men having sex with men,” Dr. Bravo says. Possible signs include bleeding from the anus or rectum, pain or pressure in the area around the anus, itching or discharge from the anus, a lump near the anus, and a change in bowel habits.¹¹

The oropharynx is the middle part of the pharynx (throat) behind the mouth, and includes the back one-third of the tongue, the soft palate, the side and back walls of the throat, and the tonsils. Possible signs of oropharyngeal cancer include a persistent sore throat, dull pain behind the breastbone, cough, trouble swallowing, unexplained weight loss, ear pain, lump in the back of the mouth, throat, or neck, and change in voice.¹²

Rare condition called recurrent respiratory papillomatosis (RRP)

A rare but problematic condition caused by HPV is recurrent respiratory papillomatosis (RRP) in which warty growths develop in the larynx of children and young adults. “RRP is passed on by a mother with genital warts to her child during birth. On average, RRP develops 5 years after birth. If not surgically removed, the warts could interfere with breathing,” explains Dr. Bravo. However, because of their recurrent nature, the warts require surgery as frequently as every few weeks.¹³

The key is to ensure women are wart-free during the time of delivery, says Dr. Bravo. “If the mother’s genital warts are numerous, there is a danger the baby could ingest them and choke. So we usually perform a cesarean section, although this does not eliminate the risk of RRP.”

Prevention always better than treatment

When detected early, cancer can often be cured. But the cost of treatment, not just in terms of money but also the physical and emotional burden as well as overall impact on quality of life, is high.

"That's why prevention is so important," Dr. Bravo stresses. "Go for regular Pap screening and medical check-ups. Practice safe sex. Get vaccinated. There is an HPV vaccine that can prevent cervical cancer, genital warts, vaginal and vulvar cancers."

Dr. Bravo shares important difference on the two currently-available HPV vaccines. "Clinical studies of the quadrivalent vaccine have endpoints for cervical, vulvar, vaginal, perianal, anal, and penile cancers. Clinical studies of the bivalent vaccine only have endpoints for cervical cancer."

"Also, only the quadrivalent HPV vaccine was able to demonstrate efficacy against the World Health Organization (WHO)-recommended endpoint for assessing vaccine efficacy. It is also the only US FDA-approved HPV vaccine for cervical cancer, genital warts, and other HPV-related diseases."

"Finally, aside from indications for women, the quadrivalent vaccine is also approved by the Bureau of Food and Drugs (BFAD) for boys ages 9 to 17. Studies for young male are still under final analysis," Dr. Bravo concludes.

HPV diseases can now be prevented through vaccination. Ask your doctor about the vaccine that can protect you from four HPV-related diseases (cervical cancer, genital warts, vaginal cancer, and vulvar cancer). For more information, log on to www.hpv.com.ph.

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