

New Study Documents Rise in Cancers Caused by HPV

Acupath's Dr. Falkowski points to highly specific tests that detect high-risk strains of virus, aiding prevention and early detection.

Plainview, NY ([PRWEB](#)) October 20, 2011 -- "HPV has been in the news lately in connection with its role in cervical cancer and the availability of a vaccine to protect young women against the virus," says Olga Falkowski, MD, a board-certified pathologist and associate medical director of Acupath Laboratories, Inc., a national medical laboratory. "But less attention has been given to the fact that HPV plays a role in several other deadly cancers that affect both men and women. And while effective screening and detection of precancerous lesions has caused cervical cancer rates to fall dramatically over the past thirty years, these other HPV-associated cancers remain on the rise."

Research published recently in the Journal of Clinical Oncology showed that HPV-16, the same strain of sexually-transmitted virus that causes many cases of cervical cancer, is responsible for a significant increase in the incidence of oropharyngeal cancers – cancers of the throat, tonsils and base of the tongue. The study, which tested tumor samples collected between 1984 and 2004, found HPV in only 16% of the samples taken in the 1980s but in 72% of those collected after 2000. Researchers estimated that the incidence in HPV-related throat cancers in the general population increased 225% from 1988 to 2004. Doctors believe that the trend may be attributable to increases in oral sex, particularly among younger people who think it is safer than intercourse.

The human papillomavirus (HPV) is the most common sexually transmitted infection. Approximately 20 million Americans are currently infected with HPV and another 6 million people become newly infected each year. HPV is so common that at least 50% of sexually active men and women get it at some point in their lives. Most people fight off HPV infections with the body's natural defenses. Yet over 28,000 people in the United States will be diagnosed with an HPV-related cancer this year.

While more than 40 strains of HPV affect genital areas, not all these strains are precursors of cancer. HPV types 6 and 11, for example, cause genital warts, which are unlikely to progress to cancer. The cancer-associated types of HPV, particularly HPV-16, HPV-18, HPV-31 and HPV-33, cause growths that usually appear flat and are nearly invisible, as compared with the warts caused by HPV-6 and HPV-11. HPV-16 and HPV-18 are known to cause the vast majority of cervical cancers and new studies show that HPV-16 is linked not only to oral cancer but also to anal cancer and other less common cancers of the vulva, vagina and penis.

"HPV testing on tissue specimens detects the genetic material of those virus types that have a higher risk of progressing to cancer," Dr. Falkowski continues. "Here at Acupath, we use a test technique called in-situ hybridization (ISH) on tissue samples to detect high-risk and low-risk forms of HPV. ISH allows for precise localization of a specific segment of DNA within a tissue specimen." The underlying basis of ISH is that nucleic acids can be detected through the application of a complementary strand of nucleic acid to which a reporter molecule is attached. Visualization of the reporter molecule allows localizing DNA sequences in a heterogeneous cell population.

"ISH is the most accurate test to distinguish harmless lesions from precancerous growths and confirm and categorize a diagnosis of HPV infection," says Dr. Falkowski. "In studies comparing ISH to other techniques, ISH was found to be nearly three times more accurate. The test gives physicians the diagnostic information critical to determining which patients are more likely to develop cancer."

PREVENTION AND EARLY DETECTION ARE CRITICAL

The FDA currently recommends the HPV vaccines Gardasil and Cervarix for women aged 9-26 to protect against most cases of cervical cancer. Gardasil is also approved for the prevention of HPV-related vulvar and vaginal cancers. The vaccines prevent precancerous lesions caused by HPV-16 and HPV-18, the most common cancer-associated types. In December 2010, the FDA approved Gardasil for the prevention of anal cancer and pre-cancer in men and women aged 9-26. In addition to protecting against anal cancer and pre-cancer, Gardasil also prevents genital warts caused by HPV-6 and HPV-11. While the vaccines protect against the most dangerous types of HPV, they do not prevent the development of cancer in those who already harbor the virus. Thus, they should be administered prior to the onset of sexual activity.

Screening for oral and anal cancers is not as well established and routine as screening for cervical cancer, which accounts in part for the fact that cervical cancer rates have dropped while HPV-related oral and anal cancers are on the rise. While laboratory tests such as ISH are extremely sensitive and accurate in identifying the HPV virus in tissue samples, the first line of defense is in the doctor's office or, as is often the case with oral cancers, the dentist's office. The symptoms of oral and anal cancers can mimic other conditions so patients who engage in sexual activity that puts them at risk for HPV should ask to be screened for suspicious lesions at least once a year.

“With vaccination and highly accurate screening tests in our arsenal, we have powerful weapons against HPV-related cancers,” Dr. Falkowski concludes. “Preventive care and early detection are key to winning the fight against these diseases.”

Acupath Laboratories, Inc. located in Plainview, New York, is an anatomic pathology and cancer genetics laboratory. Acupath's mission is to deliver fast, accurate anatomic pathology, FISH, ISH, flow cytometry, molecular and cytogenetic analysis in a way that enhances the quality of medical care provided by practitioners while minimizing the risk of error. The research and development team continuously innovates, designing up to date methodologies for testing and new ways for doctors to access, exchange, record and analyze medical information. Acupath is committed to improving efficiencies of practice, superior service and greater patient knowledge and satisfaction. Acupath is accredited by the College of American Pathologists (CAP), the Occupational Safety and Health Administration (OSHA), the Joint Commission, and certified by the New York State Department of Health (DOH). <http://www.acupath.com>.

Dr. Olga Falkowski, associate medical director of Acupath and director of genetics, is board-certified in anatomic and clinical pathology by the American Board of Pathology. Prior to joining Acupath, Dr. Falkowski was the attending pathologist at the Long Island Jewish Medical Center. After receiving her medical degree from the First Moscow Medical School in Russia, Dr. Falkowski completed a residency in general pathology there. Subsequently, she fulfilled her residency in anatomic and clinical pathology at St. Luke's-Roosevelt Hospital Center, University Hospital of Columbia University. Dr. Falkowski has served as an assistant professor at New York University School of Medicine, Hofstra University, and Albert Einstein College of Medicine. She is currently a member of the College of American Pathologists and the United States and Canadian Academy of Pathology.

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