

# The spectrum of HPV-associated clinical problems

## Biography:

Professor Paul CHAN is Clinical Professor and Chairman of the Department of Microbiology, and Deputy Director of the Stanley Ho Centre for Emerging Infectious Diseases, Faculty of Medicine, The Chinese University of Hong Kong. He is also an Honorary Consultant in Microbiology for the New Territories East Cluster Hospitals of the Hong Kong Hospital Authority. Professor Chan is a renowned clinical virologist with special interest in tumour virology and human respiratory viruses. He serves many key professional bodies in Hong Kong, including the Scientific Committee on Emerging and Zoonotic Diseases of the Centre for Health Protection, the Grant Review Board for Medical and Health Research Fund. Professor Chan is Editor-in-Chief of the Journal of Virological Methods. He has published 14 book chapters and more than 330 scientific papers, and attained an H-index of 51.

## Abstract:

To date, about 200 different types of human papillomavirus (HPV) have been identified. HPV infects keratinocytes and cause lesions over the mucosal and cutaneous surfaces of the body. The infection is mainly transmitted by direct contact with infected skin or mucosal surfaces, whereas the anogenital group of HPV is mainly transmitted by sexual contact. Inanimate objects probably also play a role as the virus is quite resistant to disinfection. The consequence of infection ranges from completely asymptomatic to cancer development. Almost everyone has had HPV infection. A survey conducted in Hong Kong showed that 1 in 12 adult women are carrying HPV in their cervix. The knowledge on aetiological role of HPV in cervical cancer has been translated successfully into clinical use. HPV test has been adopted as one of the first line screening test or used as an adjunct test upon the detection of abnormalities based on cytological examination. Two highly effective prophylactic vaccines covering the two major cancer-associated types are available. With the improved tools for screening and the newly available prophylactic vaccines, the incidence of cervical cancer is expected to further decrease in countries that can afford these preventative strategies. However, another previously unrecognized HPV-associated cancer has emerged over the last century. The overall incidence of head and neck cancers have been on the decreasing trend in most developed countries where a certain success in controlling smoking have been achieved. Paradoxically, one subset of head and neck cancers is on the raising trend. These are oropharyngeal cancers which have been shown to associate with HPV. The pendulum is now shifting. For instance, in the United States, the recent incidence of HPV-associated cancers in man is higher than that of women. Several lines of evidence also suggest a role of HPV in skin cancer which is one of the most common cancers in Europe. HPV also poses its impact via generation of benign lesions such as anogenital warts and recurrent laryngeal papillomatosis.



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