

Is there any association between immunosuppressant therapy and cancer related to HPV in men? Can we prevent it?

We reported a rare case of penile squamous carcinoma and inguinal metastasis in a patient with ulcerative colitis under azathioprine for many years. We could identify in the histological study the presence of 16 and 18 HPV subtypes. This case report is of interest because the association of HPV positive penile cancer developed in a patient under immunosuppression has not being reported before.

Human papillomavirus (HPV) is the most common sexual transmitted infection in the world. More than 40 subtypes of HPV have been identified. The subtypes 16, 18, 45 and 31 are associated with cancer and subtypes 6-11 are related to benign lesions. There is a strong correlation between HPV and cancer of the cervix, penis, vulva, vagina, anus and oropharynx. This infection can affect both genders, but unlike what occurs in women, most men never develop any symptoms becoming asymptomatic carriers. HPV 16 and 18 are found to account for 90% of all HPV-related cancers in men.

Inflammatory bowel disease (IBD) represents a group of intestinal disorders that cause prolonged inflammation of the digestive tract. Immunosuppressant therapies, including thiopurines, anti-tumour necrosis factor, cyclosporine and methotrexate are frequently necessary for IBD management. These medications decrease the activity and competence of the immune system and may increase the risk to acquire relevant infections significantly.

It is unclear how immunosuppressant drugs can modify the course of HPV infection. There are reports of viral reactivation in immunocompromised patients and actually it is known that long-lasting immunosuppression increases the number and persistence of HPV induced lesions.

HPV surveillance is recommended for immunocompromised women with IBD more frequently as compared to non-immunosuppressed. On the other hand, nothing has been suggested for immunosuppressed male patients with IBD. Protection of woman shouldn't be the only objective of HPV vaccination, because men are also at the risk.

What are the recommendations for males? The quadrivalent vaccine (protecting against HPV 6-11-16-18) is now recommended in USA for males too (aged 11–12 years old), with catch-up vaccination for those younger than 26 years old. European consensus for the prevention of opportunistic infections is ambiguous and recommends the routine prophylactic HPV of males according to national guidelines.

Vaccination against HPV is one of the preventive methods for reducing penile cancer and other HPV related diseases. What are the benefits of including men in immunization programs against

HPV? Vaccinating boys reduces virus transmission, improves cervical cancer eradication and contribute to the prevention of HPV associated diseases in both genders. There are many analyses showing cost effectiveness of vaccination in boys, this strategy can also help to reduce health care cost in long term.

There is no evidence of HPV-related cancers in male patients with IBD due to immunosuppression, but this relation has been observed in others groups such as transplant recipients and some autoimmune and immunosuppressive diseases. As we have shown in this case, there could be a relationship between HPV positive penile cancer and immunosuppressant treatment. We consider, therefore, that recommendations related to HPV prevention in IBD patients should take into account male population actively.

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Publication

[Men in the spotlight: A rare case of penile squamous carcinoma associated with human papillomavirus \(HPV\) infection in a patient with ulcerative colitis \(UC\).](#)

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