

LETTER TO THE EDITOR

Genital and oral human papillomavirus infection in a patient from the group of women who have sex with women

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CASE REPORT

A 21-year-old self-declared lesbian patient of African descent was referred to a sexually transmitted disease (STD) center at the Federal Fluminense University (UFF) from a private clinic with a case of genital warts of 1 year's duration. The patient, who denied tobacco use but admitted social alcohol use, had been in a stable homosexual relationship for the previous 16 months, and routinely performs unprotected oral sex on her partner. She had been previously treated with trichloroacetic acid (TCA) 90% throughout the year with no signs of improvement. She presented with multiple, large, and hardened genital warts (Fig. 1) and a single, small lesion on her lower lip (Fig. 2). The lower lip lesion was first noticed by the patient approximately 30 days before her consultation. She had been treated with TCA 90% applied to the genital area for 4 weeks, without any noticeable clinical improvement; a biopsy was then carried out on both the genital area and the lips. Twenty-one days after the procedure, the genital lesions disappeared completely. Laboratory examinations were ordered (anti-HIV and Venereal Disease Research Laboratory), both of which tested negative; an examination of the larynx was also normal. The patient's partner was also tested. Her hymen was found to be intact and no alterations were found in the colposcopy examination.

Both women denied past history of STDs and heterosexual intercourse; although they did declare previous relationships with digital-vaginal and digital-anal practices, as well as vulvar and oral-to-oral contact. Biopsy results for lesions of the lips and vulva revealed **condylo-mata acuminata** (Figs 3 and 4). Polymerase chain reaction (PCR) tests for human papillomavirus (HPV) were performed on both lesions but the viral subtype was not defined. Specific orientations were offered to these women who are now symptom-free, and follow-up was undertaken by the STD center.

DISCUSSION

This case report clearly illustrates the need for specific orientation about HPV infection targeted at women who have sex with women (WSW), in view of their behavioral pattern and HPV infection pattern. Intact hymen poses a challenge for HPV screening and colposcopy, as demonstrated in the present case. Even though research has indicated that many WSW have had prior sexual intercourse with men or are self-declared bisexual (53–99%),^{5,6} as indicated in a study conducted in Seattle, WA, this study showed that 86% of WSW confirmed having had sex with a male partner, and, of these, 24% reported sexual intercourse with men in the previous year;² our patient, who is WSW with intact hymen, may form yet another subgroup within the WSW subgroup.

Among the sexual practices reported, the most common are oral-vaginal sex, oral-to-oral sex, which was the case for our study subject, digital-vaginal and digital-anal sex and the use of sex toys. Any of these practices, if unprotected, would theoretically facilitate STD transmission, including HPV.^{2,7}

Our patient presented two clinical manifestations of HPV infection, namely oral and genital warts. Both her lesions



Figure 1 - Multiple and confluent warts on the vulva.



Figure 2 - A close view of a papular lesion in the mucosal oral lower lip.

were confirmed by histological studies, unlike her partner, whose examination results were negative. This fact highlights the challenge faced for breaking the HPV transmission cycle, since the incubation period of this virus varies or may even be indeterminate, resulting in a long period of time between infection and presentation of clinical signs by patients.³ Patients with a history of lesbianism in a long, steady relationship may feel uneasy in reporting previous sexual partners, which makes it harder to obtain a reliable history.

The fact that HPV types 6 and 16 have already been found in WSW, together with the example provided in our case, indicates the need for methods to effectively prevent HPV transmission, such as the use of gloves, plastic barriers and condoms.^{2,8} The isolation of HPV from sexual fomites⁹ and from fingers¹⁰ of patients with genital warts adds to the idea that this virus can be sexually transmitted between women.

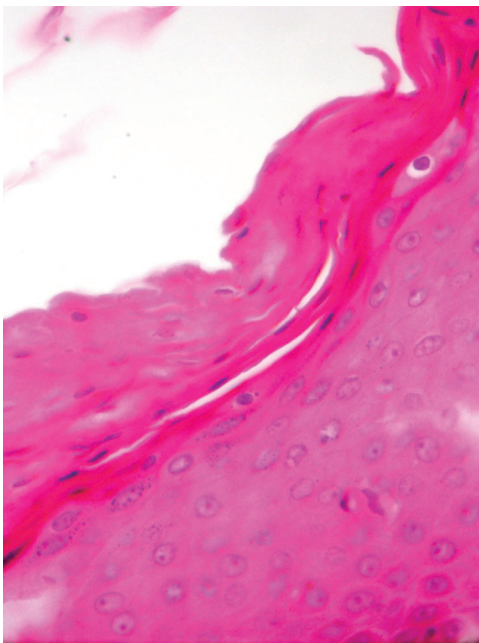


Figure 3 - Histological section under high power showing parakeratosis and slight dyskariosis (H&E, 100×).

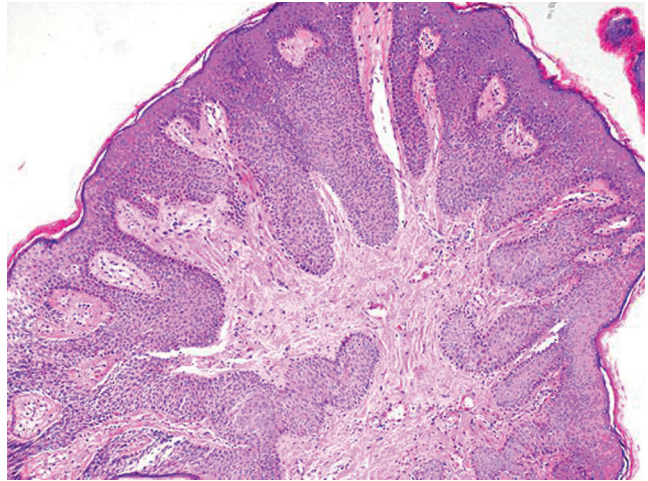


Figure 4 - Histological section under low power showing condyloma acuminata changes with prominent rete ridges and hyperkeratosis (H&E, 40×).

Among the most common viral subtypes found in genital warts were 31/33/35/39 for both WSW who deny any prior sexual contact with men and for those WSW who reported no sexual contact with men in the previous year. In the latter group, however, subtype 16 was found to be the most prevalent.²

Another important factor in the follow-up of these patients is the availability of records of their former and current sexual partners, as the information obtained may contribute to better outcomes. Our subject has undergone regular follow-up visits, varying from monthly to yearly check-ups in order to keep an accurate record of the case.

The clinical management of oral and genital warts aims at the removal of lesions, which can be done through the use of either TCA 60–90%, podophyllin resin 10–25%, or imiquimod 5% cream. A surgical approach would involve any of the following: tangential scissor excision, tangential shave excision, curettage, electrocautery, or laser surgery.

The choice of treatment should be based on the number of lesions, their localization and size, costs, and resources available. When there are few lesions present, surgical removal is indicated, especially when histological studies are desirable.^{1,11} These data are consistent with the treatment course adopted; incision biopsy was performed on the patient's genital warts after three sessions of TCA 90% and an excision biopsy was performed on the lip lesion. It should be pointed out that our patient had already been treated with TCA 90% for genital warts for approximately 1 year prior to her referral to UFF. It should also be noted that 21 days after the biopsy, the vulvar lesions had disappeared completely. It is important to emphasize the relationship between local immune factors and the viral agent, since it might be the case that the inflammation process evoked by the biopsy was a key element for viral suppression.¹²

In general, none of the available treatments are 100% effective for every patient because HPV acquires different forms of resistance in different organisms. In other words, each case should be evaluated individually, before establishing the therapeutic course. The individual immune response plays a key role in both the elimination of the virus and in the reduction of recurrence.¹³ Patients should be informed that post-treatment recurrence may be as high

as 30%, most cases of which are seen after the first 3 months of treatment.¹⁴ This emphasizes the need for WSW patients to undergo routine pap smears, along with a thorough clinical examination, including the oral cavity, in the same way as heterosexual women do. This will significantly contribute to the prevention of cervical cancer, a disease closely associated with HPV infection and which accounts for one of the two most prevalent forms of cancer in Brazilian women.^{15,16}

Various types of HPV has been described with oncogenic potential and associated with oral lesions. Squamous papilloma (SP), condyloma acuminatum (CA) and focal epithelial hyperplasia are the most frequent pathological entities associated with HPV, and this virus has been identified and correlated to lichen planus, vulgar pemphigus, squamous cell carcinoma (SCC), and verrucous carcinoma (VC).^{11,17,18} This infection often occurs on oral mucosa and the sites most involved are labial mucosa, with 55% of cases, the palate, jugal mucosa, gums, tonsils, uvula and roof of the mouth.¹⁹ Careful clinical history, oral examination, and histopathology may lead to correct diagnosis and treatment, as showed by the present report

Owing to the oncogenic role of certain types of HPV, the relation between this virus and carcinogenesis in oral mucosa is still controversial. Various studies have identified HPV in biopsies of oral SCC and VC.^{19,20} Oral HPV infection is associated with oropharyngeal cancer among subjects with or without established risk factors of tobacco and alcohol use.^{19,11}

In an attempt to protect women from cervical cancer, much research is now devoted towards the development of effective HPV vaccines.²¹ These vaccines, however, will have a prophylactic goal and be targeted at patients who have not had prior exposition to the virus.^{3,17} However important these new developments are, the need for routine HPV screening remains critical, as does the need for creating and/or strengthening HPV awareness among all WSW.

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