Intraoral verruca vulgaris by human papillomavirus: medico-legal implications

Forensic Clinical Case

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SUMMARY

Case presentation: A 32-year-old woman with an exophytic neoformation at the base of the tongue, 7mm in diameter, of 8 months evolution, clinically and histologically compatible with intraoral verruca vulgaris due to human papillomavirus, associated with gingivitis. Chronic for bad hygiene, without apparent risky sexual behavior.

Discussion: The vulgar intraoral warts due to human papilloma virus have two major legal medical implications: on the one hand, it has been observed that the human papilloma virus has an important oncogenic potential, especially in mucous tumors, with which the squamous carcinoma of the oral cavity is more frequent in people seropositive to the human papillomavirus; On the other hand, the presence of lesions caused by the virus makes it necessary to rule out a crime of sexual origin, given the relationship between the virus and risky sexual practices and the possibility of oral transmission of the virus related to the latter, especially in sexual crimes with violence. The case presented here illustrates the need to perform an adequate study protocol to rule out neoplastic evolution or the possible presence of sexual crimes or risky sexual practices.

Key words: Human papillomavirus, intraoral verruca vulgaris, oncogenesis.

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CASE PRESENTATION

It is a 32-year-old female, coming from Río Blanco, Veracruz, who attends the outpatient service of the Faculty of Dentistry of the Universidad Veracruzana, Veracruz campus, between the months of February and April 2017. She presents an exophytic multilobulated neoplasm, whitish in color, located on the lower third of the tongue, with a maximum diameter of 7 mm parallel to the lingual axis (Figure 1).

Figure 1. Exophytic neoformation of whitish color located on the underside of the tongue, with a maximum diameter of 7 mm

Her current condition began 8 months before the initial revision with a neoformation of 1-2 mm that was growing progressively and asymptomatically until reaching the current dimension; a complete spindle excision was performed for histopathological study; the piece, once included in paraffin, was stained with hematoxylin and eosin; there was stratified squamous epithelium with areas of hyperplasia and cells with perinuclear halos, as well as stroma with congestive vessels and few lymphocyte foci (figure 2).
Figure 2. On the left side, stratified squamous epithelium with hyperplasia and cells with perinuclear halo (HE, 10x); on the right side, cells with a perinuclear halo suggestive of coilocytes (HE, 40X).

With the clinical and histopathological data found, the diagnosis of Intraoral Vulgar Wart was established. As additional findings, the patient presented chronic marginal and papillary simple localized gingivitis as well as nonspecific melanosis in the lower labial mucosa (Figure 3).

Figure 3. On the left side there are clinical data compatible with marginal and papillary chronic gingivitis; on the right side hyperchromic spots are seen nonspecific in lower labial mucosa

DISCUSSION

We present the case of a 32-year-old woman, with poor hygienic habits, who presents an exophytic neoformation compatible clinically and histologically with intraoral verruca vulgaris by human papillomavirus.

The human papilloma virus belongs to the family of papillomaviridae viruses, characterized by having a great capacity to infect mucous membranes and skin, inducing cell proliferation; they have been associated with the production of viral infection in male and female genital
mucosa, as well as the presence of vulgar warts on the skin of different parts of the body; its intraoral presentation is not common, but nevertheless, any case can have diverse medico-legal implications (Cubie, 2013).

One of them refers to the oncogenic potential of the virus, due to its ability to incorporate E6 and E7 into the host genome, which leads to the inactivation of tumor suppressor genes p53 and p16 (Stephan, 2013). Analyzing the relationship between human papillomavirus and the appearance of tumors, the prevalence of squamous cell carcinoma was higher, especially in its oropharyngeal (35.6%), exclusive oral (23.5%) and exclusive laryngeal (24%) locations. (Satish, 2014). The International Agency for Research on Cancer (IARC) conducted a multicenter study, finding the presence of human papilloma virus (HPV) in 3.9% of malignant tumors of the oral cavity and 18.3% of tumors of oropharyngeal location, especially serotype 16 (89.3% of cases) (Kreimer, 2006).

The oropharyngeal location of tumors associated with HPV usually occurs at younger ages than tumors not associated with the virus, with a male-female ratio of 5:1 (Benson, 2014). Although there are more than 20 serotypes associated with oral HPV-positive tumors, serotype 16 is the most frequent in the oral cavity, with a prevalence of 70-90% depending on the population studied (Ostwald, 2003). Patients who are positive for the HPV 16 capsid protein have a two to three times higher risk of developing oral cancer, especially at the base of the tongue, the tonsillar region and other sites, even without having developed alcoholism or previous smoking (D Souza, 2009).

Oral carcinogenesis due to HPV is related to several risk factors, such as age, gender, race, lifestyle, genetic background and exposure to various known carcinogenic agents (Blitzer, 2014). In fact, it has been shown that around 75% of malignant oral cavity tumors can be related to alcohol and tobacco consumption, although this statistic is lower in other types of head and neck tumors (Termine, 2008; Szarka, 2009).

The second legal medical implication related to HPV is the possible sexual origin of the virus in the oral cavity and its relation to a crime (Kreimer, 2004). HPV infections are mostly of sexual origin; in the case of oral presentation, early sexual debut, multiple sexual partners and, obviously, oral sex have been related. However, it has not yet been shown whether the virus can be transmitted by saliva per se, without there being lesions in the oral cavity with exchange of blood or tissues (Prabhu, 2013). It has been observed that men have a risk of oral HPV acquisition two to three times higher than that of women, without being related to sexual behavior; it has been thought that it could be related to an earlier onset of sexual life, although this has not been demonstrated; What is clear is that males, being frequent asymptomatic carriers, play a very important role in the transmission of infection (Ragin, 2011).

It is common that the presence of vulgar warts oral or genital, especially in children, force to rule out the presence of a sexual offense; In this sense, it should be taken into account that HPV can occur in the oral cavity of healthy individuals, in which the oral mucosa functions as a reservoir for new infections or as a source of recurrence of HPV-associated lesions, and may reach an asymptomatic
prevalence of 0.6 - 81%, depending on the population studied (Kero, 2012).

It is clear that intraoral HPV can have legal medical implications. The correct diagnosis is very important to avoid false positives or false negatives; in the first case, non-viral pathologies, when confused with HPV, could cause the patient to undergo unnecessary legal medical scrutiny; in the case of false negatives, it could be missed a pathology that may be linked to risky sexual behaviors or may cause malignant neoformations if not treated in time, especially in a young population with risk factors with oncogenic potential (Stephen, 2013).

REFERENCES


