

ORIGINAL ARTICLE / ARTÍCULO ORIGINAL

MULTIPLE ORAL VULGAR WARTS: REPORT OF A CLINICAL CASE

VERRUGAS VULGARES BUCALES MÚLTIPLES: REPORTE DE UN CASO CLÍNICO

**Thaináh Bruna Santos-Zambrano^{1*}; Nataly Barreiro-Mendoza¹; Noelia Alarcón-Barcia¹;
Mirian Verónica Ramos-León¹; Edison Junior Rodríguez-Álava¹ & Rigoberto Fimia-Duarte²**

1* Universidad San Gregorio de Portoviejo, Ecuador. E-mail: thainahbruna@gmail.com / gnbarreiro@sangregorio.edu.ec / noeliaab91@hotmail.com / mvramos@sangregorio.edu.ec / e.ejrodriguez@sangregorio.edu.ec

2 Facultad de Tecnología de la Salud y Enfermería. Universidad de Ciencias Médicas de Villa Clara, Cuba. <https://orcid.org/0000-0001-5237-0810>. E-mail: rigoberto.fimia66@gmail.com
Author for correspondence: thainahbruna@gmail.com

ABSTRACT

The human papilloma virus constitutes a heterogeneous viral group capable of producing hyperplastic, papillomatous and verrucous lesions in both skin and mucosa, and in recent years it has been shown to play an important role in carcinogenesis. Some authors have shown that high-risk HPV infection may be a cofactor in oral carcinogenesis, although the presence of human papillomavirus would not be sufficient to cause malignant transgression, it probably requires additional genetic changes for progression to a neoplastic stage. The incidence and prevalence of the infection are increasingly high, hence the need to highlight the importance of making an early diagnosis of benign lesions in the mouth which would allow adequate preventive treatment of the lesion, preventing its transformation and progression to a premalignant and/or malignant lesion. The aim of this work is to report a clinical case of a female patient, forty-eight years old, who appeared at the Department of Pathology in Saint Gregory University of Portoviejo presenting verrucous growths on the upper lip. Considering the clinical characteristics of the lesion, our diagnostic hypothesis was lesions by the Human Papilloma Virus, and

the histopathological evaluation confirmed the diagnostic hypothesis of a squamous papilloma.

Key words: Oral mucosa – Verruca Vulgaris – Virus – HPV

RESUMEN

El virus del papiloma humano constituye un grupo viral heterogéneo capaz de producir lesiones hiperplásicas, papilomatosas y verrugosas en la piel y la mucosa, y en los últimos años, se ha demostrado que juega un papel importante en la carcinogénesis. Algunos autores han demostrado que la infección por VPH de alto riesgo puede ser un cofactor en la carcinogénesis oral, aunque la presencia del virus del papiloma humano no sería suficiente para causar transgresión maligna, probablemente requiera cambios genéticos adicionales para la progresión a una etapa neoplásica. La incidencia y prevalencia de la infección son cada vez más altas, de ahí la necesidad de resaltar la importancia de hacer un diagnóstico precoz de lesiones benignas en la boca, lo que permitiría un tratamiento preventivo adecuado de la lesión, evitando su transformación y progresión a premalignas o lesión maligna. El objetivo de este trabajo es informar un caso clínico de una paciente de cuarenta y ocho años que apareció en el Departamento de Patología de la Universidad de Saint Gregory de Portoviejo y que presenta crecimientos verrugosos en el labio superior. Considerando las características clínicas de la lesión, nuestra hipótesis diagnóstica fue: las lesiones por el virus del papiloma humano y la evaluación histopatológica confirmaron la hipótesis diagnóstica de un papiloma escamoso.

Palabras clave: Mucosa bucal – Verruga Vulgar – Virus – VPH

INTRODUCTION

Oral squamous papilloma (OSP) is a benign proliferation of the stratified squamous epithelium that results in a papillary or verrucous exophytic tumor, induced by the human papillomavirus (HPV). The human papillomavirus (HPV) is a virus from the *Papillomaviridae* family. Almost all infections occur transiently because they are controlled by the body's immune response; only between 10

and 20% become chronic or persistent and have greater oncogenic potential (WHO, 2006; Ontañón *et al.*, 2019).

This infectious agent can infect the buccal, laryngeal and cervical mucosa, as well as the genitals. HPV is the most widespread sexually transmitted disease in the United States. Its prevalence varies between 14 and 90%, being more frequent in women. There are approximately 150 different types of HPV that have been

identified; however, 24 are associated with oral lesions, of which types 16 and 18 have been associated in 85% of cases with invasive squamous cell carcinomas, dysplasias or carcinomas in situ; while types 6, 11, 13 and 32 have been associated with benign lesions (Soares *et al.*, 2019).

The route of transmission of HPV is diverse; it can occur in the perinatal route, due to transplacental infection, amniotic fluid, blood, sexual contact, autoinoculation, and some authors suggest a possible transmission by saliva. Some authors have shown that high-risk HPV infection can be a cofactor in oral carcinogenesis and that the latent infection by the virus is common. The presence of the human papillomavirus would not be enough to cause the malignant transgression, probably being necessary additional genetic changes for the progression to a neoplastic stage (Jiménez *et al.*, 2001; Lockett & Feldman, 2016).

The oral cavity diagnosis of HPV lesions is based on the clinical characteristics of the lesion, such as white or purple lesion depending on the degree of keratinization of the mucosa, rough surface, pronounced and irregular edges, sessile or pediculated, unique or multiple and generally asymptomatic. The clinical characteristics of most oral papillomas are that they are small and do not exceed one cm, although

sometimes larger lesions can reach 3 cm in size (Jiménez, 2002). They can appear at any age between the third and fifth decade of life and can appear anywhere in the oral cavity, being the most frequent site of localization the inner side of the lip, hard and soft palate, uvula and lateral border of the tongue. Lesions produced by these viruses can be classified into two large groups: benign lesions (buccal papilloma, vulgar wart, condyloma acuminatum and multifocal epithelial hyperplasia) and potentially cancerous or malignant lesions (idiopathic leukoplakia and squamous cell carcinoma) (WHO, 2006; Arreaga, 2014; Palacios-Saucedo *et al.*, 2019). The aim of this work is to report a clinical case of a female patient, forty-eight years old, who appeared at the Department of Pathology in Sanit Gregory University of Portoviejo, Ecuador presenting verrucous growths on the upper lip.

MATERIAL AN METHODS

We report the clinical case of a female patient, forty-eight years old, who appeared at the Department of Pathology in Saint Gregory University of Portoviejo due to a warty growth in the upper lip (Figure 1). In the clinical examination fragments of soft, rough, irregular tissues that measure between 0.2 to 0.3 cm, of a whitish color, are observed.



Figure 1. Clinical examination of labial mucosa. Verrucous growth is observed.

Ethic aspects

The case study was presented and approved by the institutional ethics committee of the San Gregorio University in Portoviejo, Ecuador. In addition, the term consent was presented to the patient informed.

RESULTS

The treatment was performed by means of an excisional biopsy of the lesion due to its size, infiltrative anesthesia was placed around the lesion in 4 cardinal points, (above, below, right and left, Figure 2). The amount of anesthesia was 0.8ml to avoid edematizing activity of the sample and thus be able to have accurate limits of the injury.



Figure 2. Infiltrative anesthesia around the lesion.

With scalpel n ° 12 a straight incision was made on the tissue (Figure 3). An additional cone-shaped incision was made towards the depth of the tissue to entirely remove the affected gland (Figure 4). It was then placed in a vial with 10% formalin for histopathological study. Then we proceeded to suture (silk thread 4-zeros) placing four points (Figure 5). The corresponding pharmacotherapy consisted of Betasun tablets of 25mg every 12 h for 5 days and amoxicillin tablets of 500mg every 8 h for 7 days. Post-surgery indications included a diet with nonirritating foods and daily oral hygiene complemented with mouth rinses.



Figure 3. Surgical Procedure.

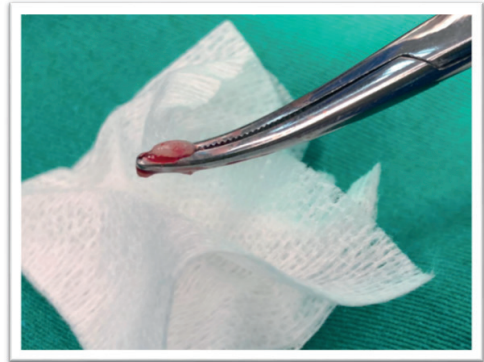


Figure 4. Surgical Procedure removal of verrucous tissue.

After 7 days, regression of the lesion was verified and the suture thread was removed. (Figures 5 and 6).



Figure 5. Suture.



Figure 6. Regression of the lesion was verified 7 days after surgical procedure.

DISCUSSION

Based on the results of the microscopic study, it shows nodular acanthosis with hyper and focal parakeratosis, with hypergranulosis. Keratinocytes in the basal stratum show mild hyperplasia with slight loss of polarity. The dermis has mild congestion with dilated capillaries with surgical edges and no histological changes. With histopathological evaluation, Squamous Papilloma was confirmed. Squamous papilloma, although more prevalent in women, can occur in any gender and at any age of the reproductive stage (Dos Reis *et al.*, 2009; Diaz *et al.*, 2014). The lesions of squamous papilloma, according to the literature, have no gender predilection, being observed in the same prevalence for men and women (Castro *et al.*, 2004; Neville *et*

al., 2004; Esquenazi *et al.*, 2010). In the case reported, we found the lesion in a 40-year-old patient. The age range is consistent with that reported by the authors indicating the appearance of lesions in an age range that varies from 30 to 50 years (Neville *et al.*, 2004; Cavalcanti & Carestiano, 2006; Fakhry *et al.*, 2019).

Some authors believe that squamous papilloma lesions in the oral mucosa are more frequent in the dorsum of the tongue and, in the vast majority of cases, are asymptomatic. In the case reported, the lesion appeared in soft, rough, and irregular whitish tissues (Batista *et al.*, 1996; Leite *et al.*, 2008; Esquenazi *et al.*, 2010).

HPV is the causative agent of cervical cancer and appears to be involved in the etiology of oral cavity cancer, which indicates the execution

of studies on non-cancerous lesions, but there is little evidence of molecular tests performed on non-cancerous lesions in the that its etiological factor is the human papillomavirus, and evidence is growing that indicates that genotypes of high-risk squamous cell carcinoma of this virus are detected, which suggests that lesions that are not cancerous and that are caused by HPV can develop malignant lesions, likewise in the present clinical case (Pardo *et al.*, 2018).

The dentist surgeon must have a thorough clinical observation and a careful history to favor the diagnosis, treatment, guidance, and clarification

to the patient about the risks and prophylactic measures that should be taken for HPV infections and possible related diseases (Medina *et al.*, 2010; Martínez-Martínez *et al.*, 2018).

Considering the clinical characteristics of the lesion, based on the results of the histopathological evaluation, this case study has as conclusion the diagnosis of a Squamous Papilloma associated with the Human Papilloma Virus. Hence the importance of an early diagnosis based on clinical, histopathological characteristics and ideally in the immunohistochemically study.

BIBLIOGRAPHICAL REFERENCES

Arreaga, C.L.G. 2014. *Índice del virus papiloma humano en la cavidad bucal en escuelas de la ciudad de Guayaquil* (Bachelor's thesis, Universidad de Guayaquil. Facultad Piloto de Odontología).

Batista, J.M.; Costa, L.; João da, B. & Goldenberg, E. 1996. Papiloma virus: sua identificação em lesões bucais. *Arquivos do Centro de Estudos da Faculdade de Odontologia da Universidade Federal de Minas Gerais*, 32: 45-49.

Castro, T. M. P. G., Neto, C. E., Scala, K. A. & Scala, W. A. 2004. Manifestações orais associadas ao papilomavírus humano (HPV) conceitos atuais: revisão bibliográfica. *Revista Brasileira de Otorrinolaringologia*, 70: 546-550.

Cavalcanti, S. & Carestiatto, F.N. 2006. Infecções causadas pelos Papilomavírus Humanos: atualização sobre aspectos virológicos, epidemiológicos e diagnóstico. *DST - Jornal brasileiro de doenças sexualmente transmissíveis*, 18: 73-79.

Díaz, M.G.; Vargas, L.A.M.; Torres, A.M.; Galindo, A I.C.; Ereira, H.A.T. & Robayo, D. A.G. 2014. La infección por virus del papiloma humano afecta el pronóstico del cáncer orofaríngeo escamocelular. *Revisión de la literatura. Universitas Odontológica*, 33: 69-77.

Dos Reis, H.L.B.; Rabelo, P.C.; de Santana, M.R.F.; Ferreira, D.C. & Filho, C.A. 2009. Oral squamous papilloma and condyloma acuminatum as manifestations of buccal-genital infection by human papillomavirus. *Indian Journal of Sexually Transmitted Diseases*, 30: 1- 40.

Esquenazi, D.; Bussoloti Filho, I.; da Costa Carvalho, M.D.G. & de Barros, F.S. 2010. The frequency of human papillomavirus findings in normal oral mucosa of healthy people by PCR. *Brazilian Journal of Otorhinolaryngology*, 76: 78-84.

Fakhry, C.; Blackford, A. L.; Neuner, G.; Xiao, W.; Jiang, B.; Agrawal, A. & Gillison, M. L. 2019. Association of Oral Human Papillomavirus DNA persistence with cancer progression after primary treatment for oral cavity and Oropharyngeal Squamous Cell Carcinoma. *JAMA Oncology*, 5: 985-992.

Jiménez, C.; Correnti, M.; Salma, N.; Cavazza, M. & Perrone, M. 2001. Detección del virus papiloma humano en entidades clínicas benignas de la cavidad bucal, mediante la reacción en cadena de la polimerasa e hibridación molecular. *Acta Odontológica Venezolana*, 39: 10-15.

Jiménez, C. 2002. Estudio Clínico-Patológico Retrospectivo de Papiloma de la Mucosa Bucal en una población venezolana. *Acta Odontológica Venezolana*, 40: 31-35.

Leite, C.A.; Acay, R.R.; Reche, P.M.; Silva, O.G.D. & Sousa, S.O. 2008. Detecção do papilomavírus humano em lesões verrucosas orais por meio da técnica de hibridização *in situ*. *Revista Gaucha de Odontologia*, 56: 237-243.

Luckett, R. & Feldman, S. 2016. Will HPV vaccination affect cervical cancer morbidity and mortality world-wide?. *Human Vaccines & Immunotherapeutics*, 12: 13-73.

Martínez-Martínez, A.; Lujan-Pardo, M.D.P. & López-Aparicio, E. 2018. High risk serotypes of the human papillomavirus (HPV) in patients with exofitic lesions in the oral cavity. *Revista Salud Uninorte*, 34: 420-429.

Medina, M.L.; Marcelo, G. & Merino, L.A. 2010. Consideraciones actuales sobre la presencia de papilomavirus humano en la cavidad oral. *Avances en Odontoestomatología*, 26: 71-80.

Neville, B.W.; Allen, C.M.; Damm, D.D. & Bouquot, J.E. 2004. *Patología: Oral & Maxilofacial*, 30: 13-75.

Ontañón, A.V.; Losa, J.H.; de Haro, R.S.L.; Paricio, B.B.; Ramón, S.; Agüeras, C. & Ferranti, M.A. 2019. Impacto del virus papiloma humano en pacientes afectados de carcinoma escamoso de cavidad oral y orofaringe. *Medicina clínica*, 152: 174-180.

Palacios-Saucedo, G.C.; Vázquez-Guillén, J.M.; Rivera-Morales, L.G.; García-Cabello, R.; Sánchez-Fresno, E.C.; Montalvo-Bañuelos, M.S. & Amador-Patiño, G.I. 2019. Prevalencia y genotipos del virus del papiloma humano en muestras de tejido laríngeo de pacientes con cáncer de laringe del noreste de México. *Cirugía y Cirujanos*, 86: 499-507.

Pardo, L.; Martínez Martínez, A. A. & López Aparicio, E. 2018. High risk serotypes of the human papillomavirus (HPV) in patients with exofitic lesions in the oral cavity. *Revista Científica Salud Uninorte*, 34: 420-429.

Soares, T.R.A.; Mamedes, I.F.; de Melo Franco, A.V.; Peixoto, F.B. & Ferreira, S.M.S. 2019. Carcinoma epidermóide causando grande destruição em mandíbula: relato de caso. *Revista Eletrônica Acervo Saúde*, 18: e119-e119.

WHO (World Health Organization). 2006. *Reproductive Health*, World Health Organization. *Chronic Diseases & Health Promotion. Comprehensive cervical cancer control: a guide to essential practice*. World Health Organization, 115: 1-180.

Received November 3, 2019.

Accepted December 20, 2019.