



Oral leukoplakia inserted on a median rhomboid glossitis

Leucoplasia bucal insertada sobre una glositis romboidal media

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ABSTRACT

Introduction: Leukoplakia is the most common premalignant lesion of the oral mucosa, with a predominance between 40 and 60 years of age and in smokers. It is unusual for it to appear on a median rhomboid glossitis.

Aim: To present a case of oral leukoplakia inserted on a median rhomboid glossitis

Clinical case: A 49-year-old female patient was found to have a whitish lesion on the dorsum of her tongue. The lesion was

removed and biopsied, revealing homogeneous leukoplakia.

Conclusions: Early diagnosis and consistent management of a premalignant lesion such as oral leukoplakia can prevent its transformation into cancer. The timely diagnosis that the stomatologist makes when a patient comes to the clinic for another reason remains the main tool capable of identifying cases of oral cancer early.

Keywords: risk factors; oral cancer; leukoplakia.

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RESUMEN

Introducción: La leucoplasia es la lesión premaligna más frecuente de la mucosa oral, con predominio entre los 40 y 60 años y en los fumadores. Es poco usual que se inserte sobre una glositis romboidal media.

Objetivo: Presentar un caso de leucoplasia bucal insertada sobre una glositis romboidal media

Caso clínico: Paciente femenina de 49 años a la que se le detectó una lesión blanquecina, en el dorso de la lengua. Se le realizó la exéresis y biopsia de la lesión en la cual se informó una leucoplasia homogénea.

Conclusiones: El diagnóstico precoz y la conducta consecuente ante una lesión premaligna como la leucoplasia bucal puede evitar su transformación cancerosa. El diagnóstico oportuno que el estomatólogo realiza cuando un paciente acude a consulta por otro motivo, se mantiene como la principal herramienta capaz de identificar, de manera temprana, casos de cáncer bucal.

Palabras clave: factores de riesgo; cáncer bucal; leucoplasia.

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INTRODUCTION

Premalignant lesions of the oral mucosa occur in 95 % of patients over 40 years of age. The definitive diagnosis of intraoral squamous cell carcinomas is usually made after the age of 60 years. About 40 % of these have their origin in the floor of the mouth or on the lateral and ventral surfaces of the tongue. These tumors usually develop from preexisting precancerous lesions of

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the leukoplakia, erythroplakia, or erythroleukoplakia type, and therefore require appropriate monitoring and treatment. ⁽¹⁻⁴⁾

Leucoplasia (a whitish patch or plaque), erythroplasia (a raised red patch or plaque) and reverse smoker's palate (a keratinized lesion of the palate caused by smoking) have been considered precursors of cancer: ⁽⁵⁾ To these premalignant lesions are added others such as oral submucous fibrosis, congenital dyskeratosis, tobacco chewer's keratosis, palatal lesions associated with reverse smoking, chronic candidiasis, lichen planus, discoid lupus erythematosus, syphilitic glossitis and actinic cheilitis, all included in a new classification called potentially malignant disorders (PMD). ^(6, 7)

Leukoplakia is the most frequent lesion that can appear anywhere in the oral cavity and oropharynx, although it has a preference for the tongue and the vermilion of the lip. It affects both sexes and was defined by the World Health Organization (WHO) in 1978 as a plaque that does not present a specific histological pattern and that cannot be removed by scraping. It may show atrophy or hyperplasia and may or may not be associated with epithelial dysplasia, with an evolution towards malignancy. ^(8, 9)

The histological study of leukoplakia shows a great variability ranging from hyperkeratosis without epithelial dysplasia to severe dysplasia with atrophy or epithelial hyperplasia phenomena. ⁽⁵⁾ From the clinical point of view, two subtypes are distinguished: homogeneous and non-homogeneous lesions, the latter being those that present the highest risk of malignant transformation. ⁽¹⁰⁾

Tobacco use poses an increased risk of developing leukoplakia and oral cancer. The combination of tobacco and alcohol increases the risk. Chronic trauma and poor dietary habits may indicate the potential for developing these types of lesions. A type of leukoplakia called hairy leukoplakia <http://revcimeq.sld.cu/index.php/img>
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affects people whose immune system has been weakened by a disease such as human papillomavirus and human immunodeficiency virus.⁽¹¹⁾

Prevention and accessibility of the oral cavity to examination are more than sufficient reasons to justify permanent health programs adapted to the specific conditions of the country. The aim of this paper is to present a case of oral leukoplakia inserted on a median rhomboid glossitis.

CLINICAL CASE

This is a 49-year-old female patient who attended a dental consultation for a periodic check-up and a whitish lesion was detected on the dorsal surface of the tongue. During the questioning, she reported a history of burn trauma in the referred area. She had no personal or family pathological history, nor toxic habits. In the extraoral examination of the lymph node chains and the temporomandibular joint, no alterations were found.

During the physical examination for the early detection of oral cancer, whitish lesions of approximately 1 to 3 mm were detected, which did not come off when scraped, were asymptomatic, located on the dorsal surface of the tongue, at the junction of the anterior and posterior two-thirds. The surface of the tongue where the lesions were located was elevated, depapillated, with a pink color and firm consistency, which corresponded to a median rhomboid glossitis. Figure 1 (a and b).

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Fig. 1 (a and b)- Middle rhomboidal glossitis

The clinical diagnosis was a lesion compatible with homogeneous leukoplakia, after performing the differential diagnosis with carcinoma in situ. Excision with biopsy was performed and the definitive diagnosis was homogeneous leukoplakia.

The patient was recommended to follow a diet rich in fruits and vegetables, to eliminate local irritants and to undergo regular check-ups for one year. During this period, the patient's progress was satisfactory in the check-ups carried out.

COMMENTS

Oral leukoplakia is usually the most frequent MPD, with an incidence of 1,5 to 12 % in the population, with predominance between 40 and 60 years of age. Some authors have shown that it does not show a predilection for sex. ^(5, 9) It is seven times more frequent in smokers. This toxic habit is its main risk factor. It can appear on the gums, floor of the mouth, inside of the cheeks or cheekbones and on the tongue. In non-smokers it almost always appears on the lateral edges of the tongue. Other risk factors are described such as infections and chronic irritation caused by

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poorly adapted dentures, infection by *Candida albicans*, Epstein-Barr virus and some genetic disorders.⁽⁷⁾

The American Cancer Society has proposed a series of measures to reduce the risk of this disease, including abstaining from tobacco and alcohol consumption, as well as adopting appropriate dietary habits. Eating fruits and vegetables reduces the risk of suffering from this condition by 10 %.^(4, 7-10)

Early diagnosis is essential to reduce the risk of malignant transformation. The treatment of this lesion is surgical. Differential, clinical and histopathological diagnosis is important, since it can sometimes be confused with other lesions such as lichen planus and verrucous leukoplakia (an aggressive lesion whose etiology is not clear).⁽¹²⁾ The tissue transformations that oral leukoplakia undergoes, towards a state of biological aggressiveness, tissue changes and variation in keratin differentiation cause this entity to develop as a preneoplastic or precancerous lesion.^(8, 13)

The unusual thing about the case presented corresponds to the presence of a median rhomboid glossitis, on which the lesion was located. This type of glossitis is a rare and underdiagnosed condition, with several hypotheses for its etiology, such as: alterations in embryonic development, inflammatory, infectious and even immunological causes.⁽¹⁴⁾ Histopathology shows the absence of filiform papillae and macroscopically it appears as a deep red or pink area, somewhat elevated, in the posterior region of the dorsum of the tongue and in front of the V of the tongue. This formation may turn out to be a site for lesions of traumatic and infectious origin.⁽¹⁵⁾ Based on the characteristics of these lesions, diagnoses such as homogeneous leukoplakia, chronic hyperplastic candidiasis and others can be proposed.^(13, 14) In this case, the patient reported a history of trauma resulting from the frequent consumption of hot foods.

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Early diagnosis and consistent management of a premalignant lesion such as oral leukoplakia can prevent its transformation into cancer. The timely diagnosis that the stomatologist makes when a patient comes to the clinic for another reason remains the main tool capable of identifying cases of oral cancer early.

BIBLIOGRAPHIC REFERENCES

1. Ávila Chiong G, Rojas Pérez S, Santos Medina S, Durañona Álvarez L. Characterization of oral mucosa lesions in patients with prostheses. Electronic Journal Dr. Zoilo E Marinello Vidaurreta [Internet]. 2014 [access: 21/03/2024]; 39 (8): [Approx 5 p]. Available in: <http://revzoilomarinello.sld.cu/index.php/zmv/article/view/216/395>. ISSN 1029-3027
2. Chusino Alarcón E, Bravo Cevallos DM. Premalignant and malignant oral lesions in the elderly. Dom Cien [Internet]. 2016 [access: 21/03/2024]; 2(3): 136-146. Available in: <https://dialnet.unirioja.es/descarga/articulo/5761569.pdf>
3. Rodríguez Fernández Y, Maestre Cabello JR, Naranjo Amaro A, Martínez Revol Y. Management of the oncological patient with floor of mouth cancer. Rev Cubana Otorrinolaringol Cirug Cabeza Cuello [Internet]. 2019 [access: 03/10/2024]; 3 (3):1 2. Available in: <https://revotorrino.sld.cu/index.php/otl/article/view/100>
4. Napoles Gonzalez ID, Alvarez Rivero A, Santana Alvarez J, Puerto Perez TV. Dental care for patients with oral cancer. Arch méd Camagüey [Internet]. 2022 [access: 03/10/2024]; 26. Available in: <https://revistaamc.sld.cu/index.php/amc/article/view/9044>
5. Medline Plus in Spanish [Internet]. Bethesda (MD): National Library of Medicine (USA) [updated 27 Sep 2017]. Leukoplakia [access: 21/03/2024]. Available in: <http://www.nlm.nih.gov/medlineplus/spanish/ency/article/001046.htm>
<http://revcimeq.sld.cu/index.php/img>
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6. López Castro JG, Guzmán Gastélum DA, Espinosa Cristóbal LF, Cuevas González JC, Tovar Carrillo KL, Reyes López SY, et al. Potentially malignant lesions of the oral cavity. Science on the frontier: science and technology journal of the UACJ [Internet]. 2021 [access: 21/03/2024]; 1: [Approx. 9 p]. Available in: <https://erevistas.uacj.mx/ojs/index.php/cienciafrontera/article/download/3594/3266/16496>
7. Tovio EG, Carmona Lourdy MC, Díaz Caballero AJ, Harris Ricardo J, Lanfranchi, Tizeira HE. Clinical expressions of potentially malignant disorders in the oral cavity. Integrative review of the literature. UnivOdontol [Internet]. 2018 Jan-Jun [access: 21/03/2024]; 37 (78): [Approx. 16 p]. Available in: <https://doi.org/10.11144/Javeriana.uo37-78.ecdp>
8. Figueroa Pérez Y, Pérez Aréchaga D, Borges García T, Ortiz Díaz LA, Cabrera García AG, Jiménez Rodríguez Y. Malignant transformation potential of oral whitish lesions. Rev Cub Med Mil [Internet]. 2021 [access: 21/03/2024]; 50(2): [aprox 15p]. Available in: http://scielo.sld.cu/scielo.php?script=sci_isoref&pid=S0138-65572021000200015&lng=es&tlng=es#:~:text=http%3A//scielo.sld.cu/scielo.php%3Fscript%3Dsci_arttext%26pid%3DS0138%2D65572021000200015%26lng%3Des.%20%C2%A0Epub%C2%A001%2DAgo%2D2021
9. Iparraguirre MF, Fajardo X, Cameiro E, Couto PH. Potentially malignant oral disorders - What the dentist should know. Rev Estomatol. Herediana [Internet]. 2020 [access: 08/02/2024]; 30 (3): 216-223. Available in: http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1019-43552020000300216&=es
10. Wamakulasuriya S. Oral potential malignant disorders: A comprehensive review on clinical aspects and management. Oral Oncol [Internet]. 2020 [accessed: 02/08/2024]; 102: 1-5. Available in: <http://revcimeq.sld.cu/index.php/img>
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<https://pubmed.ncbi.nlm.nih.gov/31981993/#:~:text=https%3A//doi.org/10.1016/j.oraloncology.2019.104550>

11. Galindez Acosta MF, Gilligan Gerardo M. Oral leukoplakia associated with human papillomavirus. Bipolar infection in a young patient. Rev de la fac de CM de Córdoba [Internet]. 2020 [access: 08/02/2024]; 77 (4): 367-372. Available in: <https://doi.org/10.31053/1853.0605.v77.n4.30733>

12. Altozano-Rodulfo P, Sierra-Santos L. White Tongue: Proliferative Verrucous Leukoplakia. REV CLIN MED FAM[Internet]. 2019 [access: 08/02/2024]; 12 (3): 163-166. Available in: https://scielo.isciii.es/scielo.php?script=sci_isoref&pid=S1699-695X2019000300163&lng=es&tlng=es#:~:text=http%3A//scielo.isciii.es/scielo.php%3Fscript%3Dsci_arttext%26pid%3DS1699%2D695X2019000300163%26lng%3Des.%20%C2%A0Epub%C2%A021%2DOct%2D2019

13. Castelnaux Martínez M, Montoya Sánchez I, Serguera Batista Y, Giraldo Moran RM, Pérez Rosabal A. Clinical and epidemiological characterization of patients with oral leukoplakia. MEDISAN [Internet]. 2020[access: 02/08/2024]; 24 (1): 4-15. Available in: <https://medisan.sld.cu/index.php/san/article/view/2516>

14. Delgado Azañero W, ArrascueDulanto M, Lévano Loayza S. Chronic hyperplastic candidiasis of the tongue: A lesion with dysplastic changes. Rev Est Herediana [Internet]. 2021 access: 02/08/2024]; 31 (4): 303-10. Available in: http://www.scielo.org.pe/scielo.php?script=sci_isoref&pid=S1019-43552021000400303&lng=es&tlng=es#:~:text=http%3A//www.scielo.org.pe/scielo.php%3Fscript%3Dsci_arttext%26pid%3DS1019%2D43552021000400303%26lng%3Des.%20%C2%A0Epub%C2%A005%2DOct%2D2021.%C2%A0%20http%3A//dx.doi.org/10.20453/reh.v31i4.4099
<http://revcimeq.sld.cu/index.php/img>
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15. García Molina Y, González Lara M, Crespo Morales A. Premalignant and malignant lesions in the oral complex in La Palma, Pinar del Río. Rev Ciencias Médicas [Internet]. 2018 [access: 08/02/2024]; 22 (6): 61-69. Available in: <https://revcmpinar.sld.cu/index.php/publicaciones/article/view/3551>

Conflicts of interest

The authors report no conflicts of interest.

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