



Severe chronic generalised periodontitis Periodontitis crónica severa generalizada

Mónica Sofía Pallo-Sarabia
ua.monicaps83@uniandes.edu.ec
Universidad Regional Autónoma de Los Andes. UNIANDES, Ambato,
Tungurahua, Ecuador
<https://orcid.org/0000-0001-5026-3528>

ABSTRACT

Objective: To detail the surgical management of exodontia in patients with severe chronic generalised periodontitis. **Method:** A descriptive documentary review was carried out using the systemic review technique. **Results and conclusion:** Tooth loss due to chronic periodontitis is the major reason for tooth extraction in the adult population due to the severity of the condition and its rapid progression. Antibiotic therapy controls the infection for a limited time, but if it is not treated clinically through mechanical intervention it tends to progress rapidly to a chronic state of increased periodontal involvement.

Descriptors: orthodontics corrective; surgery oral; periodontics. (Source, DeCS).

RESUMEN

Objetivo: detallar el manejo quirúrgico de exodoncia en pacientes con periodontitis crónica severa generalizada. **Método:** Se realizó revisión descriptiva documental con apoyo de la técnica de revisión sistémica. **Resultados y conclusión:** La pérdida dental por periodontitis crónica es el mayor motivo de extracción dental en la población adulta por la severidad de la afección y su rápido progreso. La terapia antibiótica controla la infección por un tiempo limitado, pero si esta no se trata clínicamente a través de la intervención mecánica rápidamente tiende a avanzar hasta llegar a un estado crónico de mayor afectación periodontal.

Descriptorios: ortodoncia correctiva; cirugía bucal; periodoncia. (Fuente, DeCS).

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Brief original



INTRODUCTION

Tooth extraction in cases of chronic periodontitis is indicated when the damage is severe and has advanced to both the periodontal tissue and the dental organ, causing pulp necrosis and apical periodontitis, in most cases accompanied by periodontal abscesses, therefore, rehabilitation is not possible due to pulp mobility and pulp involvement and endodontic treatment is not possible in cases of pulp canal calcification or root resorption.^{1 2 3 4 5 6}

In view of this, the prevalence rate in older adults in Ecuador is 70%, with a clear majority in the male gender with a percentage of 56.4%¹⁰, the high rate is due to factors such as age, diet, systemic diseases and the consumption of medication, thus establishing itself as one of the most prevalent pathologies in the country. In a study conducted in Mexico, the prevalence of periodontitis in the individuals studied was 80%. However, there are limited studies that show the prevalence of this type of pathology in the country, even so, the evidence is statistically significant in relation to other diseases.^{7 8 9 1}

The aim of this article is to detail the surgical management of exodontia in patients with severe chronic generalised periodontitis.

METHOD

A descriptive document analysis supported by the systemic review technique was carried out.

The documentary sample consisted of 15 scientific articles extracted from PubMed, Scopus.

The collected data were subjected to a documentary content analysis for further processing.



RESULTS

Tooth loss due to chronic periodontitis is the major reason for tooth extraction in the adult population due to the severity of the condition and its rapid progression; however, the dentist must make the decision to extract teeth according to the degree of periodontal involvement and its prognosis. Therefore, in the present case it is reported that the extraction of tooth ^{1 2} was due to the progress of the periodontal disease and the condition of the tooth, which is why it was not possible to rehabilitate and preserve the dental unit, which coincides with the study by the author Elemek ⁶, which showed that at least twenty-nine patients who underwent periodontal therapy lost at least one tooth due to periodontal disease. ^{1 5 11 12}

With regard to chronic periodontal disease, according to Eke P, Thornton G¹³, they mention that it is adults aged 65 years and older who present advanced periodontitis, have probing depths greater than 4 mm, accompanied by loss of clinical attachment, factors that agree with those obtained in the present case review. Likewise, there are studies such as those by Yag G, Tan M, Wong M¹⁴, in which they highlight the affection of masticatory function in older adults as a consequence of chronic periodontal disease; in addition, they mention that there is still insufficient evidence that periodontal treatment in these cases contributes to the improvement of advanced periodontal affection. ^{14 13 1}

The incidence and progression of periodontal disease in older adults is greater, it depends on risk factors and the development of bacteria present in the oral cavity for its progress, in these cases it prevails in a chronic manner due to its long evolution, demonstrated by the longitudinal study of the authors Ju x, Harford J, Luzzi L¹⁴, On the other hand, other studies show that pharmacological therapy in these cases only acts in the short term, although it reduces the bacterial load, it is very invasive when used in the long term, which is why the duration of this therapy



must be controlled during periodontal treatment and taking into account the general state of the patient's health in order not to interfere or generate complications. ¹⁵

CONCLUSION

Extraction of dental organs due to periodontal disease, due to its unfavourable prognosis and impossible rehabilitation, is the best option to stop the progression of the infectious process and further damage to periodontal tissues. Antibiotic therapy controls the infection for a limited time, but if it is not treated clinically through mechanical intervention it quickly tends to progress to a chronic state of further periodontal involvement.

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CONFLICT OF INTEREST

There is no conflict of interest with persons or institutions involved in the research.

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REFERENCES

1. Pyo J, Lee M, Ock M, Lee J. Quality of Life and Health in Patients with Chronic Periodontitis: A Qualitative Study. *Int J Environ Res Public Health*. 2020;17(13):4895. doi:10.3390/ijerph17134895
2. Alshawwa H, Wang JF, Liu M, Sun SF. Successful management of a tooth with endodontic-periodontal lesion: A case report. *World J Clin Cases*. 2020;8(20):5049-5056. doi:10.12998/wjcc.v8.i20.5049
3. Claesson R, Johansson A, Belibasakis GN. Clinical laboratory diagnostics in dentistry: Application of microbiological methods. *Front Oral Health*. 2022;3:983991. doi:10.3389/froh.2022.983991
4. Khan SU, Ghafoor S, Khaliq S, Syed AR. Salivary Irisin and periodontal clinical parameters in patients of chronic periodontitis and healthy individuals: A novel salivary myokine for periodontal disease. *J Pak Med Assoc*. 2022;72(1):27-33. doi:10.47391/JPMA.01367



5. Uraz A, Karaduman B, Isler SÇ, Gönen S, Çetiner D. Ozone application as adjunctive therapy in chronic periodontitis: Clinical, microbiological and biochemical aspects. *J Dent Sci.* 2019;14(1):27-37. doi:10.1016/j.jds.2018.06.005
6. Elemek E. Periodontal disease severity, tooth loss, and periodontal stability in private practice. *Niger J Clin Pract.* 2022;25(6):931-937. doi:10.4103/njcp.njcp_1952_21
7. Avishai G, Muchnik D, Masri D, Zlotogorski-Hurvitz A, Chaushu L. Minimizing MRONJ after Tooth Extraction in Cancer Patients Receiving Bone-Modifying Agents. *J Clin Med.* 2022;11(7):1807. doi:10.3390/jcm11071807
8. Butul B, Fathima N, Vishwakarma S. Genetic association, and epistatic interaction analysis of cluster of differentiation 14 and mannan-binding lectin 2 gene polymorphic variants in susceptibility to chronic periodontitis. *Meta Gene.* [Internet] 2021; 100963, 30. 10.1016/J.MGENE.2021.100963
9. Islas-Granillo H, Borges-Yañez SA, Navarrete-Hernández JJ, et al. Indicators of oral health in older adults with and without the presence of multimorbidity: a cross-sectional study. *Clin Interv Aging.* 2019;14:219-224. Published 2019 Jan 30. doi:10.2147/CIA.S170470
10. Parise-Vasco J, Zambrano-Achig P, Viteri-García A. Estado de la salud bucal en el Ecuador [State of oral health in Ecuador]. *Odontología Sanmarquina.* [Internet] 2020;327-331,23(3). Disponible en: <https://revistasinvestigacion.unmsm.edu.pe/index.php/odont/article/view/18133>
11. Konecná B, Chobodová P, Janko J. The Effect of Melatonin on Periodontitis. *International Journal of Molecular Sciences* [Internet] 2021;22,2390. Disponible en: <https://www.mdpi.com/1422-0067/22/5/2390/htm>
12. Suzuki S, Sugihara N, Kamijo H. Reasons for Tooth Extractions in Japan: The Second Nationwide Survey. *International Dental Journal.* [Internet] 2022; 366-372, 72(3). 10.1016/J.IDENTJ.2021.05.008
13. Eke P, Thornton-Evans G, Wei L. Periodontitis in US Adults: National Health and Nutrition Examination Survey 2009-2014. *Journal of the American Dental Association.* [Internet] 2018; 576-588.6, 149(7). Disponible en: <http://jada.ada.org/article/S0002817718302769/fulltext>
14. Yan G, Tan M, Wong M. Functional Dentition, Chronic Periodontal Disease and Frailty in Older Adults--A Narrative Review. *International Journal of Environmental Research and Public Health* [Internet] 2023;20, 502. Disponible en: <https://www.mdpi.com/1660-4601/20/1/502/htm>
15. Ju X, Harford J, Luzzi L. a Longitudinal Study of Chronic Periodontitis in Two Cohorts of Community-Dwelling Elderly Australians. *International Journal of Environmental Research and Public Health.* [Internet] 2022;11824, 19(18). Disponible en: <https://www.mdpi.com/1660-4601/19/18/11824/htm>



16. Li A, Du M, Chen Y. Periodontitis and cognitive impairment in older adults: The mediating role of mitochondrial dysfunction. *Journal of Periodontology*. [Internet] 2022; 1302-1313, 93(9). Disponible en: <https://onlinelibrary.wiley.com/doi/full/10.1002/JPER.21-0620>

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