

Endodontic Medicine

José López-López*

Department of Odontostomatology, Barcelona University, Spain

***Corresponding Author:** José López-López, Department of Odontostomatology, Barcelona University, Spain.

Received: September 17, 2017; **Published:** September 28, 2017

In this volume we observe how dentistry is becoming more technical every day, and is achieving spectacular results in dental treatment. Similarly, we observe that dental research is highly active, and consider particularly worthy of note studies such as that on the new models of implants by the group of Dr. Kianor Shahmohammadi, or the eminently practical protocol proposed by the Greek group of Professor Zouloumi Lambros.

Without providing comment on the wealth of important articles from this excellent volume, as teachers of oral pathology we will comment specifically on the concept of Endodontic Medicine, an aspect that interrelates the degree of health of the teeth with the patient's systemic condition.

One of the groups that has carried out work in this area is the Sevillian group of Professor Juan José Segura Egea. This author specifies in his study [1]: [Adapted] Following the analogy for the hypothesis formulation described by Stuart Mill in his 2008 publication in the *Journal of Endodontics* [2], it is plausible to assume that chronic apical periodontitis is also associated with the same systemic alterations to which periodontal disease is associated. The "endodontic medicine" should, therefore, be developed following the path of "periodontal medicine": investigating the association between endodontic pathology and therapeutics and systemic pathologies. However, although studies have been published that relate endodontic pathology and therapeutics to diabetes mellitus [3-6], smoking [7], ischemic heart disease [8,9], hematological diseases [10,11], renal disease [12], or osteoporosis [13], the probable relationships between the state of systemic health and the chronic inflammatory pathology of endodontic origin have hardly been studied [14].

This aspect is justified if we think that, although there are differences between chronic periodontal inflammation and chronic apical periodontitis of endodontic origin, both share three aspects: i) both are chronic infections of the oral cavity, ii) the etiopathogenesis of both share a microbiota and are considered to be polymicrobial infections with a predominance of Gram negative anaerobic bacteria [15]; (iii) in their pathophysiology, the two entities involve an increase in the local levels of cytokines and mediators of inflammation (in the crevicular fluid in the case of periodontal disease and in periapical tissues in apical periodontitis). These mediators may have repercussions on the systemic levels [16-18].

Finally, we can conclude this very brief review by saying that the results of the studies carried out so far do not seem to be conclusive. Instead they indicate that the patients' periodical health may be directly related to their systemic health status, and that therefore it is important to conduct verified research on this subject.

Bibliography

1. Segura Egea JJ, *et al.* "Medicina endodónica: implicaciones sistémicas de la patología y terapéutica endodónicas". *Endodoncia* 28.4 (2010): 233-240.
2. JOE Editorial Board. "Relationship between systemic diseases and endodontics: An online study guide". *Journal of Endodontics* 34 (2008): e195-e200.

3. Segura-Egea JJ, *et al.* "Association between diabetes and the prevalence of radiolucent periapical lesions in root-filled teeth: systematic review and meta-analysis". *Clinical Oral Investigations* 20.6 (2016): 1133-1141.
4. Sánchez-Domínguez B, *et al.* "Glycated hemoglobin levels and prevalence of apical periodontitis in type 2 diabetic patients". *Journal of Endodontics* 41.5 (2015): 601-606.
5. Mauri-Obradors E, *et al.* "Effect of nonsurgical periodontal treatment on glycosylated hemoglobin in diabetic patients: a systematic review". *Odontology* 103.3 (2015): 301-313.
6. López-López J, *et al.* "Periapical and endodontic status of type 2 diabetic patients in Catalonia, Spain: a cross-sectional study". *Journal of Endodontics* 37.5 (2011): 598-601.
7. López-López J, *et al.* "Frequency and distribution of root-filled teeth and apical periodontitis in an adult population of Barcelona, Spain". *International Dental Journal* 62.1 (2012): 40-44.
8. Berlin-Broner Y, *et al.* "Apical periodontitis and atherosclerosis: Is there a link? Review of the literature and potential mechanism of linkage". *Quintessence International* 48.7 (2017): 527-534.
9. Berlin-Broner Y, *et al.* "Association between apical periodontitis and cardiovascular diseases: a systematic review of the literature". *International Dental Journal* 50.9 (2017): 847-859.
10. Castellanos-Cosano L, *et al.* "Prevalence of apical periodontitis and frequency of root canal treatments in liver transplant candidates". *Medicina Oral Patología Oral y Cirugía Bucal* 18.5 (2013): e773-e779.
11. Castellanos-Cosano L, *et al.* "High prevalence of radiolucent periapical lesions amongst patients with inherited coagulation disorders". *Haemophilia* 19.3 (2013): e110-e115.
12. Khalighinejad N, *et al.* "Association of End-stage Renal Disease with Radiographically and Clinically Diagnosed Apical Periodontitis: A Hospital-based Study". *Journal of Endodontics* 49.3 (2017): 1438-1441.
13. López-López J, *et al.* "Radiolucent periapical lesions and bone mineral density in post-menopausal women". *Gerodontology* 32.3 (2015): 195-201.
14. "Executive Summary: Standards of Medical Care in Diabetes – 2010". *Diabetes Care* 33 (2010): S4-S10.
15. Saber MH, *et al.* "Bacterial flora of dental periradicular lesions analyzed by the 454-pyrosequencing technology". *Journal of Endodontics* 38.11 (2012): 1484-1488.
16. Rashmi N, *et al.* "Assessment of C-reactive Proteins, Cytokines, and Plasma Protein Levels in Hypertensive Patients with Apical Periodontitis". *Journal of Contemporary Dental Practice* 18.6 (2017): 516-521.
17. Singhal RK and Rai B. "sTNF-R Levels: Apical Periodontitis Linked to Coronary Heart Disease". *Open Access Macedonian Journal of Medical Sciences* 5.1 (2017): 68-71.
18. Wang F, *et al.* "Pro-Inflammatory Cytokine TNF- α Attenuates BMP9-Induced Osteo/Odontoblastic Differentiation of the Stem Cells of Dental Apical Papilla (SCAPs)". *Cellular Physiology and Biochemistry* 41.5 (2017): 1725-1735.

Volume 14 Issue 6 September 2017

© All rights reserved by José López-López.