

Relationship between Periodontal Diseases and Hypertension in Tunisia

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Abstract

Revised:

Reviewed:

In the present study, the hypertensive subjects were more affected by periodontal disease than the control cases. Thus, a linear association is established between these two diseases. Indeed, periodontitis is an inflammatory disease of bacterial origin. Periodontopathogenic bacteria by bacteremia and the release of pro-inflammatory mediators could influence the elevation of blood pressure by inducing a systemic vascular inflammation leading to endothelial dysfunction at the origin of cardiovascular pathology, in particular the elevation of blood pressure [11].

The microbiological study conducted by Desvarieux in 2010 shows a positive association between the growth of periodontopathogenic bacteria (*Aggregatibacter actinomycetemcomitans*, *Porphyromonas gingivalis*) and the prevalence of hypertension [12]. *Aggregatibacter actinomycetemcomitans* is known to play a role in the pathogenesis of atherosclerosis, including endothelial permeability, serum lipoprotein concentration and lipoprotein binding in the arterial intima [15].

Conclusion

The absence of regular control of periodontal health in Tunisia with the existing association between periodontal disease and hypertension could explain in part the increase in the prevalence of hypertension in Tunisian. Randomized Controlled Trials should be conducted to determine the impact of periodontal treatment on blood pressure and further investigation is needed to reveal the detailed causal relationship between specific periodontopathic bacterial infection and