

Short Communication

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Coronavirus and Periodontal Disease - A Warning

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Infections in the ICU are directly associated with the causes of morbidity and mortality in hospitals worldwide [1]. An international, multicenter, prospective study on the prevalence of infection in the ICU points out the clear relationship between infection and mortality [2]. In this study, a group of fourteen thousand four hundred and fourteen (14,414) patients was evaluated, of which one thousand two hundred and thirty (1,230) were Brazilian, coming from ninety (90) intensive care units in Brazil. Of these, 61.6% had infection on the day of the study and the lung was the main site of infection (71.2%). 50% of the patients had a positive culture, with a predominance of bacilli. It is estimated that an individual with moderate to severe periodontitis has an area of 72cm² (8.5cmx8, (71% subgingival descn) of ulcerated epithelium in contact with microorganisms gram-negative biofilm [3]. Remembering that the greater the gingival inflammation, the greater the permeability of the junctional epithelium, favoring the penetration of bacterial endotoxins and the production of proinflammatory cytokines by the host [4,5].

Periodontal infection, pods that stimulate lipopolysaccharides (LPS), present for the acute phase response and act directly on hepatocytes or indirectly through the production of cytokines [3,4]. Periodontitis is a chronic infection that involves a large number of Gram-negative bacilli, in which the host relationship is modulated by hospitalized microbial and environmental challenges, mainly when manifested in an acute and severe way, only However, in a few days, periapical lesions, mucositis, osteoradionecrosis, fungal infections, increase in residual saliva (the one that remains in the oral cavity after swallowing), sialorrhea, excess saliva, and stagnation of organic matter in the oral cavity can become acute in a few days.

All this, associated with common and frequent episodes of dysphagia, seems to predispose the migration of oral microorganisms to the lungs by aspirating the contents of the oral cavity and oropharynx. The oral cavity can play an important role i can contribute to systemic le [4]. Thus, its clinical evolution under those under intensive care in patients, under oral diet. It serves as a source for colonization by infectious and inflammatory processes, as the subsequent pneumonia [6].

In the face of this assertion, it is suggested that the most common route of migration of lung microorganisms is through several

studies demonstrating secretions present in the oropharynx [7-9]. For those in which patients with periodontal disease have pneumonia, both in the higher prevalence of chronic obstructive pulmonary diseases and in the community, as well as in a hospital environment [9-12].

These data show the periodontal responsibility of their patients and the Periodontist, in the treatment of periodontal foci that need a specialized approach, both in the community and in the hospital environment. In this context, necrotizing periodontal diseases (gingivitis, periodontitis and stomatitis) stand out, which are serious infectious/inflammatory diseases resulting from sudden onset of periodontal and surrounding structures related to various systemic disorders, especially when there is vulnerability in the response of the host in the face of aggression. In addition, the greater the gingival inflammation, the greater the permeability of the junctional epithelium, favoring the penetration of bacterial endotoxins that stimulate the production of pro-inflammatory cytokines by the host [4,5].

Thus, it is suggested that the contamination route may occur via hematogenous route and not only through the respiratory route, through the aspiration of the contaminated content, present in the oral cavity [6,9,13]. Given this, knowing that chronic degenerative diseases, such as diabetes, heart disease, and many others, including cases of cancer, are risk factors for infection with the coronavirus, it is important to note that Periodontal Disease is included in this list. It is therefore a warning: patients with periodontal diseases should be better monitored so that they are more protected. Still, in the case of hospitalizations necessary for them, the risks will thus be lower, as well as the recovery, sice, is need intubation and probable bronchoaspiration, there are less aggressive pathogens.

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