

ORAL PROBIOTIC ADMINISTRATION IN PERI-IMPLANT MUCOSITIS: A SYSTEMATIC REVIEW

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Aim: assess the efficacy of oral probiotic administration in patients with peri-implant mucositis (PiM), both individually and in association with non-surgical debridement therapy (NSDT).

Methods: the research was performed through the electronic databases PubMed, Scopus, and Web on Science, using the following combinations of MeSH terms “oral cavity AND probiotics AND mucositis”, and “probiotics AND dental implants AND mucositis”. We considered the studies published between January 2015 and February 2023. Starting from 91 studies and after the application of the inclusion and exclusion criteria, we selected 11 studies.

Results: three studies assess the efficacy of probiotic treatment (PT) individually. It's been encountered an improvement in the inflammatory clinical signs, a reduction in pro-inflamma-

tory cytokines and cariogenic microorganisms' levels, and an increase in IgA levels.

Six studies assess the efficacy of PT in association with NSDT. It's been found a general clinical signs improvement both in the test and in the control group, which was bigger in the test group. Two studies encountered also a reduction in *P. gingivalis* and pro-inflammatory cytokine levels. The last two studies didn't find any relevant variation between the test (NSDT+PT) and control (PT) groups.

Conclusions: nine studies found relevant variations following the administration of PT. It emerged that it is an effective instrument in preventing and treating PiM. Further studies are needed to standardize the used microorganisms, the pharmaceutical form, and the dosage of the PT.

THE MOST COMMON GENERA DETECTED IN SALIVARY MICROBIOTA OF PATIENTS AFFECTED BY ORAL CANCER

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Aim: oral squamous cell carcinoma (OSCC) is one of the most prevalent cancers worldwide. Despite advances in diagnostic and surgical techniques, in the last years, the incidence of OSCC increased and the survival rate is still low. The causal correlation between oral microbiota and carcinogenesis has not yet been demonstrated representing a real challenge.

The aim of this review is to investigate the most common genera in the salivary microbiota of OSCC patients.

Methods: PRISMA guidelines have been followed to perform this systematic review. Observational studies about the composition analysis of salivary microbiota in human subjects with histological diagnosis of OSCC were selected.

Results: searching through the various databases yielded 558 articles; a total of 5 articles were included. The salivary micro-

biota of 373 patients was analyzed. There were 273 patients affected by OSCC, and there were 100 healthy patients. Despite the great heterogeneity of the included articles, the most common genera detected in the OSCC patients were *Fusobacterium*, *Prevotella*, and *Capnocytophaga*. Interestingly, these three bacteria are periodontal pathogens. Therefore, a potential implication of periodontal pathogenesis mechanisms in oral carcinogenesis was evaluated.

Conclusions: identifying a specific microbiota pattern involved in oral carcinogenesis could be useful for improving early diagnosis and focused therapy of patients affected by OSCC. Further studies are necessary to determine a causal association between salivary microbiota composition and oral carcinogenesis.