

Other journals in brief

A selection of abstracts of clinically relevant papers from other journals.
The abstracts on this page have been chosen and edited by Reena Wadia

Adjunctives in the non-surgical treatment of peri-implantitis

Liñares A, Sanz-Sánchez I, Dopico J, Molina A, Blanco B, Montero E. Efficacy of adjunctive measures in the non-surgical treatment of peri-implantitis: A systematic review. *J Clin Periodontol* 2023; DOI: 10.1111/jcpe.13821. Online ahead of print.

Improved PD reductions result after the use of systemic antimicrobials, and to a lesser extent, after the use of local antimicrobials.

This systematic review evaluated the efficacy of patient-performed or administered adjunctive measures to non-surgical peri-implantitis therapy in terms of probing depth (PD) and/or bleeding on probing (BoP) reductions. Randomised controlled clinical trials with at least six months of follow-up were searched in three databases. Secondary outcomes included implant loss, disease resolution, recurrence of peri-implantitis, need of re-treatment, changes in marginal bone levels, patient-reported outcomes and adverse effects. Three types of adjunctive measures were found. Four studies evaluated the effects of local antimicrobials, three studies evaluated systemic antimicrobials (either amoxicillin + metronidazole or metronidazole alone) and two studies evaluated probiotics. The addition of local antimicrobials led to modest improvements in PD reduction. Systemic antimicrobials showed significantly greater reductions in PD and BoP, especially at initially deep sites (PD >6 mm).

<https://doi.org/10.1038/s41415-023-5903-9>

Impact of parents' perio status

Reis A A, Monteiro M F, Bonilha G M *et al.* Parents with periodontitis drive the early acquisition of dysbiotic microbiomes in their offspring. *J Clin Periodontol* 2023; DOI: 10.1111/jcpe.13815. Online ahead of print.

The parents' periodontal status significantly affects the microbiome composition of their offspring from an early age.

The offspring of subjects with periodontitis (Perio group) and the offspring of periodontally healthy subjects (Healthy group), matched for gender and age, were included in this cross-sectional study. The patients were clinically assessed and their saliva collected for DNA extraction. Fifty children of parents with periodontitis and 50 from healthy parents were included and divided according to the dentition phase: pre-dentate (n = 5), primary dentition (n = 15), mixed dentition (n = 15) and permanent dentition (n = 15). Children of the Perio group presented a microbial diversity different from that of the Healthy group in mixed and permanent dentitions. The more intense shift in the community occurred between primary and mixed dentition in the Perio group, while the transition between mixed and permanent dentition was the period with greater changes in the microbiome for the Healthy group.

<https://doi.org/10.1038/s41415-023-5910-x>

ChatGPT for dental

Eggmann F, Weiger R, Zitzmann N U, Blatz M B. Implications of large language models such as ChatGPT for dental medicine. *J Esthet Restor Dent* 2023; DOI: 10.1111/jerd.13046. Online ahead of print.

While LLMs such as ChatGPT may have various useful applications in dental medicine, they come with risks of malicious use and serious limitations, including the potential for misinformation.

ChatGPT, a large language model (LLM) trained on massive amounts of textual data, is adept at fulfilling various language-related tasks. Despite its impressive capabilities, ChatGPT has serious limitations, such as occasionally giving incorrect answers, producing nonsensical content, and presenting misinformation as fact. Dental practitioners, assistants, and hygienists are not likely to be significantly impacted by LLMs. However, LLMs could affect the work of administrative personnel and the provision of dental telemedicine. LLMs offer potential for clinical decision support, text summarisation, efficient writing, and multilingual communication. As more people seek health information from LLMs, it is crucial to safeguard against inaccurate, outdated, and biased responses to health-related queries.

<https://doi.org/10.1038/s41415-023-5909-3>

Orthograde endodontic retreatment after failed apicectomy

Appel D, Schäfer E, Appel C. Success rate of orthograde endodontic retreatment after failed apicectomy – A retrospective study. *Int Endod J* 2023; DOI: 10.1111/iej.13925. Online ahead of print.

Orthograde retreatment should be considered a valuable treatment option after failed apicectomy.

The purpose of this study was to examine the clinical outcome of orthograde endodontic retreatment after failed apicectomy. Success was rated radiographically in 191 cases of orthograde retreatment after failed apicectomy that were treated in a private practice with a documented recall of at least 12 months. The radiographs were rated individually by two observers; in cases of disagreement a consensus was reached by joint discussion with a third observer. Success or failure were evaluated according to previously described criteria. The success rate and the median survival were calculated using the Kaplan-Meier survival analysis. The log rank test was used to evaluate the effect of prognostic factors/predictors. The mean follow-up of the included 191 patients was 32.1 months and the median was 25 months. The overall recall rate was 54%. The overall percentage of success was 84.8%. The median survival was 86 months. None of the selected predictors had an influence on the treatment outcome.

<https://doi.org/10.1038/s41415-023-5911-9>