

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.

Vitamins for perio

El-Sayed K M, Cosgarea R, Sculean A, Doerfer C. Can vitamins improve periodontal wound healing/regeneration? *Periodontol 2000* 2023; DOI: 10.1111/prd.12513.

Vitamins especially A, B, E, and CoQ10, as well as vitamin combinations, could exert positive attributes on periodontal outcomes.

The aim of this article was to elaborate on whether or not vitamins improve wound healing/regeneration, summarising the current evidence from *in vitro*, animal and clinical studies, thereby shedding light on the knowledge gap in this field and highlighting future research needs. Although the review demonstrated the current heterogeneity in the available evidence and knowledge gaps, the findings suggested that vitamins, especially A, B, E, and CoQ10, as well as vitamin combinations, could exert positive attributes on the periodontal outcomes in adjunct to surgical or nonsurgical periodontal therapy.

<https://doi.org/10.1038/s41415-023-6349-9>

Facial attractiveness and malocclusion perception

Zorlu M, Camcı H. The relationship between different levels of facial attractiveness and malocclusion perception: an eye tracking and survey study. *Prog Orthod* 2023; **24**: 29.

While a worsening of the ideal smile had a smaller impact on aesthetic perceptions in an individual with low facial attractiveness, it had a significant negative impact on a person with high facial attractiveness.

The study investigated the relationship between levels of facial attractiveness and the perception of different types of malocclusion. A preliminary questionnaire was used to assign photographs of three female patients to low, moderate, and high facial attractiveness designations. Seven modified photographs for each smile photograph of each of these three patients were created. The evaluated photographs were: P0: at rest position, P1: ideal smile, P2: - 2-mm (low) smile line, P3: + 4-mm gummy smile, P4: + 6-mm gummy smile, P5: maxillary anterior crowding, P6: median diastema, P7: polydiastema. An eye tracking device and a questionnaire were used to collect data from orthodontists, dentists, orthodontic patients, and laypeople.

Orthodontists and dentists had higher total fixation duration scores than orthodontic patients and laypersons. The maxillary anterior crowding photograph had the lowest visual analysis scale score at each attractiveness level. While a worsening of the ideal smile had a smaller impact on aesthetic perceptions in an individual with low facial attractiveness, it had a significant negative impact on a person with high facial attractiveness. Anterior crowding and diastema had a more negative impact on facial attractiveness than low or high smile lines.

<https://doi.org/10.1038/s41415-023-6351-2>

Periodontitis and cognitive decline

Carballo A, López-Dequidt I, Custodia A *et al.* Association of periodontitis with cognitive decline and its progression: Contribution of blood-based biomarkers of Alzheimer's disease to this relationship. *J Clin Periodontol* 2023; DOI: 10.1111/jcpe.13861.

Periodontitis is associated with cognitive decline and its progression in elderly patients with a previous history of hypertension.

This study assessed whether periodontitis is associated with cognitive decline and its progression as well as with certain blood-based markers of Alzheimer's disease. Data from a two-year follow-up prospective cohort study (n = 101) were analysed. Participants with a previous history of hypertension and aged ≥ 60 years were included. All of them received a full-mouth periodontal examination and cognitive function assessments. Plasma levels of amyloid beta (A β)1-40, A β 1-42, phosphorylated and total Tau (p-Tau and t-Tau) were determined at baseline, 12 and 24 months. Periodontitis was associated with poor cognitive performance and progression of cognitive impairment. Subjects with periodontitis showed greater baseline levels of p-Tau and A β 1-40 compared with those without periodontitis. Concentrations of the latter protein also increased over time only in the periodontitis group. Periodontitis is associated with cognitive decline and its progression in elderly patients with a previous history of hypertension. Overexpression of p-Tau and A β 1-40 may play a role.

<https://doi.org/10.1038/s41415-023-6350-3>

Otalgia after orthognathic surgery

Sakamoto Y, Wakabayashi K, Ishii T, Kishi K. Incidence of Otalgia After Orthognathic Surgery. *J Craniofac Surg* 2023; DOI: 10.1097/SCS.00000000000009609.

The risk of minor changes in hearing function is probable during the first week after orthognathic surgery; however, these negative changes either completely disappear or remain negligible.

This study examined the relationship between the direction of maxillary displacement and post-operative otalgia. Twenty consecutive patients underwent Le Fort I maxillary osteotomy using advancement, impaction, setback, or a combination of these procedures. The direction of movement and incidence of otalgia were investigated. Patients provided informed consent pre-operatively, and post-operative reassurance was prudent. Pure-tone average evaluation based on horizontal or vertical movements did not show significant differences, although vertical movements resulted in fewer changes in the hearing threshold. Specifically, no significant changes were observed in the hearing thresholds of patients after surgery. No significant difference was also observed between horizontal and vertical movements in the tympanometry results. Negative changes were found in the results of the Eustachian tube dysfunction test in vertical movements, which returned to pre-operative values in the final test.

<https://doi.org/10.1038/s41415-023-6352-1>