

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.

Dental aesthetic ratios

Özdemir H, Özdemir M. Evaluation of the parameters related to the golden ratio in the teeth of individuals from different countries: A systematic review and meta-analysis. *J Prosthet Dent* 2023; DOI: 10.1016/j.prosdent.2023.09.032.

Dental aesthetic ratios should be set based on the racial and ethnic character of a population.

Golden proportion, golden percentage, and recurring esthetic dental (RED) proportion are parameters used in aesthetic dentistry. However, a meta-analysis of studies evaluating these parameters in individuals from different countries is lacking. The purpose of this systematic review and meta-analysis was to determine and compare the golden ratio, golden percentage, and RED ratio values as seen in the maxillary anterior teeth of individuals from different countries. A systematic search was performed using PubMed/Medline, Google Scholar, and Web of Science to identify articles. The search protocol resulted in a total of 752 articles, but only 26 articles fulfilling the inclusion criteria were included in the meta-analysis. While the sample size varied between 46 and 384 in the 26 analysed studies, a total of 3786 individuals from 12 countries were evaluated. No similarity was found using the aesthetic parameters determined in the populations to which the meta-analysis was applied. Mathematical formulas did not provide consistent results that would allow for their use as a standardised guide for creating natural-looking smiles. Rather, dental aesthetic ratios should be set based on the racial and ethnic character of a population.

<https://doi.org/10.1038/s41415-023-6667-y>

Complement C3 as a drug target in periodontitis

Alayash Z, Baumeister S-E, Holtfreter B *et al.* Complement C3 as a potential drug target in periodontitis: Evidence from the cis-Mendelian randomization approach. *J Clin Periodontol* 2023; DOI: 10.1111/jcpe.13894.

Findings suggest a potential protective effect of C3 blockade against periodontitis.

Evidence from a Phase IIa trial showed that a complement C3-targeted drug reduced gingival inflammation in patients with gingivitis. Using drug-target Mendelian randomisation (MR), this study investigated whether genetically proxied C3 inhibition altered the risk of periodontitis. Multiple 'cis' instruments from the vicinity of the encoding loci of C3 were used. Instrument selection was restricted to the drug target encoding loci. Three uncorrelated single-nucleotide polymorphisms associated with serum C3 levels were selected from a genome-wide association study (GWAS) of 5368 European descent individuals. Association statistics from a GWAS of 17,353 clinical periodontitis cases and 28,210 European controls were extracted. MR analysis revealed that the inhibition of C3 reduces the odds of periodontitis.

<https://doi.org/10.1038/s41415-023-6670-3>

Patient-reported outcomes following implants

Mauland E K, Bull V H, Melbye E L, Verket A. Patient-reported outcomes following dental implant rehabilitation according to reason for missing teeth: A survey from a Norwegian population 8 years following treatment. *J Clin Periodontol* 2023; DOI: 10.1111/jcpe.13895.

Self-report of complications and lack of pre-treatment information were the strongest predictors of inferior patient satisfaction and predicted inferior oral function.

This study aimed to assess patient-reported outcomes (PROs) 8 years after dental implant rehabilitation in a sample with tooth loss due to periodontitis (TLP) and a sample with missing teeth for other reasons (MTOR). The Norwegian National Insurance Scheme registry of subsidised dental implant therapy was searched, and patients (n = 3083) rehabilitated with dental implants in 2014 were sent a questionnaire. Of the respondents (n = 1299), more than 90% were partly or fully satisfied with the treatment outcome. Complications were reported by 44%. Patients who lost teeth due to periodontitis (n = 784) reported greater oral function improvement and better pre-treatment information, and were more likely to experience complications when compared with patients who lost teeth for other reasons (n = 515). Age, level of education, self-funded cost, pre-treatment information, history of complications and the reason for missing teeth were found to predict PROs.

<https://doi.org/10.1038/s41415-023-6669-9>

The ideal shape of the female jaw angle

Mommaerts M Y, Cleymaet R. The ideal shape of the female jaw angle: An online survey. *J Craniomaxillofac Surg* 2023; **51**: 597–602.

A gonial angle in profile of 125.5° and in anterior view of 142°, an intergonial-interzygomatic width ratio of 0.83 and the vertical position of the jaw angles at the level of the stomion or upper lip were considered important.

This study determined the characteristics of an attractive white female jaw angle in the three dimensions. An online survey of photographs of celebrities and laypeople was used to rate their attractiveness using 6 questions and a 3-item Likert scale. If ≥ 80% of participants rated a model as having attractive aesthetic features, it was considered attractive. The following features were considered important: a gonial angle in profile of 125.5° and in anterior view of 142°, an intergonial-interzygomatic width ratio of 0.83 and the vertical position of the jaw angles at the level of the stomion or upper lip. Surgeons can use these consensus criteria to help design a jaw angle implant, define orthognathic surgical strategies, or shape the angle using injectables.

<https://doi.org/10.1038/s41415-023-6668-x>