

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.

Relevance of oral cavity in COVID

Herrera D, Serrano J, Roldán S, Sanz M. Is the Oral Cavity Relevant in SARS-CoV-2 Pandemic? *Clin Oral Investig* 2020; DOI: 10.1007/s00784-020-03413-2. [Epub ahead of print].

Antiseptic mouth rinses have been suggested in decreasing the severity of COVID-19 and in reducing the risk of transmission but the evidence on efficacy is indirect and weak.

Recent scientific evidences suggest a relevant role of the oral cavity in the transmission and pathogenicity of SARS-CoV-2. A literature search was performed in PubMed, up to April, 2020, focusing on SARS-CoV-2, COVID-19, oral cavity, and antimicrobial agents. Oral viral load of SARS-CoV-2 has been associated with the severity of COVID-19, and so a reduction in the oral viral load could be associated with a decrease in the severity of the condition. Similarly, a decrease in the oral viral load would diminish the amount of virus expelled and reduce the risk of transmission, since (i) during the first ten days, the virus mainly accumulates at the nasal, oral, and pharyngeal area; (ii) the number of angiotensin-converting enzyme receptor is greater in the salivary glands as compared with the lungs; and (iii) salivary droplets represent the most relevant transmission route. To reduce the oral viral load, antiseptic agents may be used, although the authors found the evidence on its efficacy to be indirect and weak. Further well-designed studies are required.

<https://doi.org/10.1038/s41415-020-1924-9>

Screening for diabetes using gingival crevicular blood?

Sande A R, Guru S, Guru R, Gaduputi S, Thati D K, Siddeshappa S T. Gingival Crevicular Blood Glucose Levels: Is It a Reliable Tool for Screening Diabetes in a Dental Office? *J Contemp Dent Pract* 2020; **21**: 421-425.

Gingival crevicular blood can provide a valid and acceptable source for measuring blood glucose levels.

This study evaluated whether gingival crevicular blood collected during routine periodontal examination could be used for evaluating blood glucose levels. A total of 100 patients aged between 25–55 years were enrolled. In a fasting condition, gingival crevicular blood (GCB), finger-stick blood (FSB) was measured using a glucometer and venous blood (VB) glucose values were measured in the laboratory with glucose oxidase method. When compared, the GCB glucose values, VB glucose values and the FSB glucose values measured with glucometer in the diabetic and nondiabetic group were found to be highly statistically significant. The authors suggest that gingival crevicular blood can provide a valid and acceptable source for measuring blood glucose levels using a glucometer. They suggest the technique described is quick, safe, easy to perform and more acceptable to the patients.

<https://doi.org/10.1038/s41415-020-1951-6>

Periodontal disease & lung cancer

Wang J, Yang X, Zou X, Zhang Y, Wang J, Wang Y. Relationship Between Periodontal Disease and Lung Cancer: A Systematic Review and Meta-Analysis. *J Periodontol Res* 2020; DOI: 10.1111/jre.12772. [Epub ahead of print].

A significant association was found between periodontal disease and the incidence of lung cancer.

This meta-analysis was undertaken to investigate the association between periodontal disease (PD) and the risk of lung cancer. Cohort and case-control studies investigating the correlation between PD and lung cancer were included. The association between PD, edentulism, and lung cancer was measured by the adjusted hazard ratios (HRs) or odds ratios (ORs) and their 95% confidence intervals (CIs). Six cohort studies and two case-control studies, assessed as high-quality, involving 167,256 participants, were included. The summary estimates showed an association between PD and a significant risk of lung cancer both in cohort studies (HR = 1.40) and case-control studies (OR = 1.51). Similar features were found in the sensitivity analysis and subgroups for six cohort studies, of male only, setting the lung cancer incidence as endpoint, and adjusting alcohol for multifactorial HR. The authors suggest a significant association between PD and the incidence of lung cancer but emphasise that further observational studies are required by using standardised measurements to assess the periodontal status and by eliminating confounding factors, such as alcohol and diabetes, to verify such a relationship.

<https://doi.org/10.1038/s41415-020-1952-5>

Polycystic ovarian syndrome & periodontitis

Machado V, Escalda C, Proença L, Mendes J J, Botelho J. Is There a Bidirectional Association Between Polycystic Ovarian Syndrome and Periodontitis? A Systematic Review and Meta-analysis. *J Clin Med* 2020; **9**: .DOI: 10.3390/jcm9061961.

Polycystic ovarian syndrome and periodontitis may be linked.

This review aimed to critically assess the evidence linking polycystic ovarian syndrome (PCOS) and periodontal disease (PD). Five databases were searched up to May 2020. Case-control and cohort studies on the association of PCOS and PD were included. Twelve case-controls fulfilled the inclusion criteria (876 with PCOS and 48170 healthy controls), all scored as having a low risk of bias. Meta-analysis revealed that PCOS females have 28% more risk towards PD, and PD females have 46% more risk to have PCOS. PCOS females with PD had higher gum bleeding, periodontal pocket depth and clinical attachment loss than non-PCOS females with PD. On the basis of the available evidence, it is possible to assume a bidirectional link between PCOS and PD. Further prospective and clinical trial studies with nonsurgical periodontal therapy are necessary to clarify the existence of an increased risk of PCOS in women with PD and *vice-versa*.

<https://doi.org/10.1038/s41415-020-1953-4>