

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.

COVID-19 detection via oropharyngeal secretion

Yu C, Li L, Tuerson Y *et al.* Oropharyngeal secretion as alternative for SARS-CoV-2 detection. *J Dent Res* 2020; DOI: 10.1177/0022034520940292.

The nasopharyngeal swab test has a risk of sending home more patients (59%) who still have the infection, while the oropharyngeal secretion test will make such an error in fewer patients (14%).

This study determined if sampling of oropharyngeal secretions (OSs) helped improve detection of SARS-CoV-2 RNA by nucleic acid amplification testing of potential patients with COVID-19. The first prospective study consisted of 75 patients with COVID-19 who were ready for discharge and who had 2 consecutive negative results per nucleic acid amplification testing (NAAT) of viral samples retrieved with nasopharyngeal swabs (NPSs). The NAAT results of paired OS and NPS samples from 50 additional recruits with COVID-19 during their recovery stage were used in a second prospective study to compare the diagnostic values of the 2 viral RNA sampling methods. OSs obtained from 2 of the 75 participants in the first study yielded positive results for SARS-CoV-2 nucleic acid. Subsequent chemiluminescence enzyme immunoassays indicated that they were positive for the SARS-CoV-2 IgM and IgG antibodies. For parallel NAAT of OS and NPS samples in the second study, McNemar's test indicated that the difference between the frequencies of inconsistent parts of OS and NPS was statistically significant.

<https://doi.org/10.1038/s41415-020-2062-0>

Efficacy of mouth exercising devices

Gondivkar S, Gadbañal A R, Sarode S C *et al.* Clinical efficacy of mouth exercising devices in oral submucous fibrosis: a systematic review. *J Oral Biol Craniofac Res* 2020; **10**: 315–320.

Mouth exercising devices could play an important role in the management of oral submucous fibrosis.

The management of oral submucous fibrosis (OSF) is primarily focused towards minimising symptoms and preventing cancer development. Mouth exercise physiotherapy independently or in combination with other modalities is considered to be a mainstay for increasing the mouth opening (MO). This systematic review identified different mouth exercising devices (MEDs) and provided information on the clinical efficacy of these devices among OSF patients. Five papers met the inclusion criteria. Five MEDs were identified for increasing the MO in OSF patients. Only one study administered additional treatment with topical steroids, oral antioxidants and ice-cream stick regime. The follow-up ranged from 8 weeks to 6 months. The majority of studies reported significant improvement in the MO without any relapse and side effects, but the authors suggest a need for further investigations using randomised controlled trials.

<https://doi.org/10.1038/s41415-020-2065-x>

Peri-implant soft tissue phenotype modification

Tavelli L, Barootchi S, Avila-Ortiz G, Urban I A, Giannobile W V, Wang H-L. Peri-implant soft tissue phenotype modification and its impact on peri-implant health: A systematic review and network meta-analysis. *J Periodontol* 2020; DOI: 10.1002/JPER.19-0716.

Bilaminar approach involving CTG or ADM obtained the highest amount of MT gain, while APF in combination with FGG was the most effective technique for increasing KMW.

The peri-implant soft tissue phenotype (PSP) encompasses the keratinised mucosa width (KMW), mucosal thickness (MT) and supracrestal tissue height (STH). Numerous approaches to augment soft tissue volume around dental implants have been investigated. This systematic review analysed the efficacy of procedures aimed at modifying the PSP and their impact on peri-implant health. A comprehensive search was performed, and selected articles were classified according to their surgical approach: either bilaminar or an apically positioned flap (APF) technique. Twenty-three RCTs were included in the meta-analysis: bilaminar techniques in combination with soft tissue grafts (connective tissue graft [CTG], collagen matrix [CM] and acellular dermal matrix [ADM]) resulted in a significant increase in MT compared to non-augmented sites. In particular, CTG and ADM were associated with higher MT gain as compared to CM and non-augmented sites. No significant differences in KMW were observed across different bilaminar techniques. PSP modification via a bilaminar approach (CTG/CM) showed beneficial effects on marginal bone level stability. APF-based approaches in combination with free gingival graft (FGG), CTG, CM or ADM showed a significant KMW gain compared to non-augmented sites. Compared to APF alone, only FGG exhibited a significantly higher KMW gain. APF with any soft tissue graft was associated with probing depth, soft tissue dehiscence and plaque index reduction compared to non-augmented sites. The evidence regarding the effect of PSP on peri-implant marginal bone loss/preservation is inconclusive.

<https://doi.org/10.1038/s41415-020-2066-9>

Cystic epithelial lining around a dental implant

Gandhi Y, Bhatavadekar N. Cystic epithelial lining seen around a dental implant: A case report of a rare finding. *J Oral Biol Craniofac Res* 2020; **10**: 369–373.

Evidence of a peri-implant cystic lining.

Peri-implant pathologies have recently seen an increase in incidence. This case report elucidates a rare case implant failure that occurred shortly after prosthetic loading, where the clinical signs mimicked peri-implant disease and attending bone loss, but the histological report confirmed presence of a cystic lining around the implant. To the best of the authors' knowledge, this represents the first publication of an evident peri-implant cystic lining in a case exhibiting no radiographic evidence of the same.

<https://doi.org/10.1038/s41415-020-2067-8>