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**

Diabetes risk assessment

A validated prediction model involving dental variables can identify undiagnosed diabetes.

The aim of this study was to develop and externally validate a score for use in dental settings to identify those at risk of undiagnosed nondiabetic hyperglycemia (NDH) or type 2 diabetes (T2D). The Studies of Health in Pomerania (SHIP) project comprises two representative population-based cohort studies conducted in Northeast Germany. SHIP-TREND-0, 2008 to 2012 had 3,339 eligible participants, with 329 having undiagnosed NDH or T2D. External validation of the model and score employed an independent data set comprising 2,359 participants with 357 events. The final model included age, sex, body mass index, smoking status, first-degree relative with diabetes, presence of a dental prosthesis, presence of mobile teeth, history of periodontal treatment, and probing pocket depths ≥5 mm as well as prespecified interaction terms. In SHIP-TREND-0, the model area under the curve (AUC) was 0.72, calibration in the large was -0.025. The point score AUC was 0.69, with sensitivity of 77.0, specificity of 51.5, negative predictive value of 94.5, and positive predictive value of 17.0. External validation of the point score gave an AUC of 0.69, sensitivity of 79.2, specificity of 49.9, negative predictive value 91.5 and positive predictive value of 25.9.

Diabetes – periodontal and implant complications

Uncontrolled diabetes impacts on periodontal treatment outcomes and risk of developing peri-implant diseases.

Epidemiologic evidence indicates that periodontitis is more frequent in patients with uncontrolled diabetes mellitus than in healthy controls, suggesting that it could be considered the 'sixth complication' of diabetes. Periodontal treatment has been shown to have the potential to improve the metabolic control of diabetes, although long-term studies are lacking. Uncontrolled diabetes also seems to affect the response to periodontal treatment, as well as the risk to develop peri-implant diseases. Mechanisms of associations include the release of advanced glycation end products as a result of hyperglycemia and a range of shared predisposing factors of genetic, microbial, and lifestyle nature. This review also discusses the role of the dental professional in the diabetes-periodontal interface.

Preferences for hypodontia

Appearance is an important outcome from hypodontia treatment.

This study examined young people and parents' preferences for hypodontia treatment using discrete choice experiment (DCE). This was a cross-sectional survey of young people (12–16 years) with hypodontia. Participants were recruited from NHS hospitals in England and Wales. A bespoke DCE questionnaire was developed. The questionnaire was completed: 1) online by young people and parents, individually or together; and 2) by child-parent dyads under observation. In total, 204 participants completed the online questionnaire, and 15 child-parent dyads completed the questionnaire under observation. The most important attribute in hypodontia treatment was improvement in appearance, but significant heterogeneity was found in preferences. Four distinct groups of participants were found: group 1 (39%): severe discomfort and problems were most important; group 2 (31%): most concerned about improvement in appearance of teeth and improvement in bite; group 3 (22%): appearance three times more important than any other attribute; and group 4 (9%): preferences difficult to interpret. Making trade-offs in DCE tasks helped some people think about treatment and identify their preferences. Appearance is an important outcome from hypodontia treatment, but preferences vary, and potential risks and functional outcome are also important to some people. There is a notable level of uncertainty in decision-making, which suggests further shared decision support would be valuable.

Treatments for burning mouth syndrome

Among all tested treatments, only clonazepam is likely to reduce the pain of BMS when compared with placebo.

This systematic review and network meta-analysis (NMA) of randomised controlled trials evaluated the effectiveness of treatments for pain relief of burning mouth syndrome (BMS). The primary outcome was pain relief or burning sensation, and the secondary outcomes were side effects, quality of life, salivary flow, and TNF-α and interleukin 6 levels. Forty-four trials were included. The anxiolytic (clonazepam) probably reduces the pain of BMS when compared with placebo. Photobiomodulation therapy and pregabalin achieved the minimal important difference of a beneficial effect with low or very low certainty.