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ORAL SURGERY

Incidence and evolution of inferior alveolar nerve lesions following lower third molar extraction

Queral-Godoy E, Valmaseda-Castellón E *et al Oral Surg* 2005; **99**: 259-264

Older patients are at greater risk of lasting neural damage.

In a Spanish university clinic over a period of 3.6 yrs, there were 4,995 extractions of lower third molars in 3,513 patients. In the patients who had both molars removed, extractions were separated by 3 weeks or more. In most cases, buccal flaps were raised, with osteotomy and tooth sectioning if necessary.

At suture removal, 55 patients had inferior alveolar nerve (IAN) side-effects after 56 extractions (1.1%). One was total anaesthesia, 8 were dysaesthesia, and the remainder were hypoaesthesia. In regression analysis, age was the only significant factor affecting IAN recovery after extraction. The likelihood of recovery decreased by 4% with every year of age. A person 10 years older than another had approximately 2/3 the chance of similar recovery at any specified time after injury.

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ORAL ONCOLOGY

Clinico-pathological features of squamous cell carcinoma of the oral cavity in patients <40 years of age

Sasaki T, Moles DR *et al J Oral Path Med* 2005; **34**: 129-133

Clinical stage and mode of invasion were important prognostic factors in both older and younger patients.

Currently there is controversy over the aetiology of oral squamous cell carcinoma (SCC) in young patients. In a cohort of 529 patients diagnosed with oral SCC over a 10 year period at a London hospital, 35 (6.6%) were aged <40 yrs (Y group). These were compared with a control group (C) of 110 randomly selected from the remainder.

In both groups the tongue was the most involved site, accounting for 54% of cases in the Y group. There was a significant difference in clinical T (tumour) stage between groups, arising mainly from the C group having a greater proportion of T4 cases and fewer T3 cases. However, there were no significant differences in nodal involvement or overall TNM staging. The main histopathological difference was that twice the proportion of Y patients (66% v. 33%) had well-differentiated tumours.

The authors conclude that there is no difference in presentation or outcome of oral SCC in younger patients, and suggest that research is needed to account for the earlier age of onset in the Y group.

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ORTHODONTICS

A randomized controlled trial comparing the quadhelix and the expansion arch for the correction of crossbite

McNally MR, Spary DJ *et al J Orthod* 2005; **32**: 29-35

The appliances were equally effective in function, but differed in other ways.

Sixty consecutive patients requiring maxillary arch expansion at a UK hospital were randomised to the two treatments. The study was completed by 28 patients treated with the quadhelix, a device with buccal and palatal elements, and 27 treated with the buccally-placed expansion arch.

Laboratory testing showed the expansion arches produced 1.8N at 10 mm of expansion, and quadhelix arches of size 2 and 3 produced equivalent forces at 5 mm and 7 mm of expansion respectively. In 12 weeks, quadhelix arches had produced mean expansion of 4.54 mm between first molars, and 1.4 mm between canines. Respective figures for expansion arches were 5.09 mm and 2.12 mm

Patients reported some discomfort and aesthetic concerns for both appliances (intergroup differences NS), and the authors suggest that the choice of treatment therefore depends on other factors, possibly including cost.

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PERIODONTOLOGY

Periodontal diseases and the risk of preterm birth and low birth weight: a meta-analysis

Khader YS, Ta'ani Q. *J Periodontol* 2005; **76**: 161-165

There appeared to be an association in the studies reviewed.

This study comes from the most controversial area of current periodontology, the renaissance of focal infection theory. The meta-analysis was based on 5 studies from 1996 to 2002. The 5 studies were reduced to 4 when one of low quality was excluded, and the adjusted odds ratio for association of periodontitis with preterm birth was 4.28 (CI 2.62, 6.99), while the OR for preterm low birth weight was 5.28 (2.21, 12.62).

The authors conclude from these associations that there is a causal effect of periodontitis on obstetric outcome, and discuss some suggested mechanisms. This meta-analysis excluded from the 5 studies the first significant study which showed no association of periodontitis with obstetric outcome. It also did not take account of emerging evidence that behavioural factors, including smoking, were insufficiently quantified in studies of possible systemic effects of periodontitis. Other large studies have since suggested no effect, and the controversy continues.

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