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Oral surgery: adverse effects

Gustatory function after third molar extraction

Shafer DM, Frank ME et al.
Oral Surg 1999; 87: 419-428

Removing all four third molars, either surgically or with forceps according to their clinical status, was associated with subsequent reduced taste perception.

Taste function in 17 patients aged 15-28 years, whose four third molar teeth were extracted under local anaesthesia, was compared with that in a control group of 20 dental students aged 24-36 years, who received LA injections as a part of their training. Salty, sweet, sour and bitter perceptions were tested for the whole mouth, and for specific intraoral locations, before the procedure and 1 month and 6 months later.

In the control group, taste function was similar at all 3 examinations. In the extraction group, there was an approximately 14% reduced intensity in whole mouth perception of salt, sour and bitter stimulants 1 month afterwards, persisting to 6 months for the sour taste. Taste intensity on discrete areas of the tongue was also reduced.

The lowest taste intensities 6 months after surgery were experienced by 5 patients who had presented with the deepest impacted molars. The authors comment that reduced taste perception may last longer, and possibly contributes to the gustatory deficit associated with aging.

Periodontics; radiotherapy

Periodontal attachment loss in patients after head and neck radiation therapy

Epstein JB, Lunn R et al.
Oral Surg 1998; 86: 673-677

This study suggests that radiotherapy may increase periodontitis.

In 10 patients who received a mean of 5335 cGy radiation for various oral tumours, a comparison was made of periodontal changes over a subsequent period of 3.25-10.75 years (median 6.01). Eighty-six teeth within the high-dose radiation volume were compared with 144 outside it.

Subsequently, 30 teeth within the radiation field were lost, and 14 outside it. There were significant differences between groups in subsequent mean probing depth increase (0.82 mm on high dose irradiated teeth versus 0.4 mm on others), recession increase (1.88 versus 1.16 mm) and further probing attachment loss (2.81 versus 1.43 mm).

Although initial measurements are not given, the control data suggest this group of patients was quite susceptible to periodontitis. The authors support the idea of thorough dental assessment and treatment planning in all patients about to undergo head and neck radiotherapy, with particular reference to the teeth in fields of high dose irradiation.

Dental pathology; dietetics

Dental erosions in subjects living on a raw food diet

Ganss C, Schlechtriemen M et al
Caries Res 1999; 33: 74-80

A group of subjects on a raw food diet had over 3 times as much dental erosion as a control group.

The level of dental erosion in 130 subjects participating in a larger dietary study was compared with that of 76 age and gender matched random controls. The experimental subjects (median age 43 years, range 18-63) were selected for ingestion of over 95% uncooked food for at least 1 year (median 39 months, range 17-418). Study models from all subjects were examined for erosion and subjects answered a questionnaire on diet, health and oral hygiene. Prior to examination, 112 of the experimental subjects recorded their precise intake for 7 days.

Erosion was found in 98% of the experimental group and 87% of the controls, but was more severe in the former. In the raw food group, the median percentage of surfaces eroded was 24%, but in the controls it was only 7%. Analysis of dietary records showed that the experimental group almost exclusively drank water and had a median food ingestion frequency of 12.7 times daily. No correlation of erosion with any dietary factor, such as citrus fruit intake, was found with multiple regression.

Oral medicine

The clinical characteristics of intraoral herpes simplex virus infection in 52 immunocompetent patients

Eisen D
Oral Surg 1998; 86: 432-437

In practice, Herpes simplex virus (HSV) infection is often confused with recurrent aphthous ulceration (RAU), and this paper describes features of lesions which were culture-positive for HSV.

Over a 5 year period, 52 patients were identified with intraoral ulcers from which HSV was isolated. No patient with identifiable immune compromise was included. All patients had a history of recurrent labial HSV infection, but only 27 had knowledge of previous intraoral lesions. Of these, 22 had previously been incorrectly diagnosed as RAU.

One third of patients had single ulcers and the remainder had multiple lesions, usually clustered and up to 5 in number. Ulcers were described as usually shallow, covered with a yellow pseudomembrane and on an erythematous base. In 47 cases, they were limited to keratinized mucosa. Infection of nonkeratinized mucosa is more typical of immunosuppressed patients. The author comments that wrongly prescribed topical steroid therapy, based on misdiagnosis of HSV lesions as RAU, has potential for harm by assisting viral dissemination.