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IMPLANT DENTISTRY; ONCOLOGY

A clinical evaluation of implants in irradiated oral cancer patients

Visch LL, van Waas MAJ *et al. J Dent Res* 2002; **81**: 856-859

Implant survival was affected by radiation dose, bone resection and the jaw in which the implants were placed.

Implant-supported prostheses have a special role in patients treated with radiotherapy because the latter causes changes which make ordinary prostheses less tolerable. This was a prospective study over a 14 year period in 130 consecutive patients (60% male; mean age 62 yrs) treated for oral cancer. Patients with periodontal problems were excluded. A 2-stage procedure was used to place 446 implants (296 in anterior mandible, 42 posteriorly; 51 in anterior maxilla, 57 posteriorly).

By the end of the study, 50 patients had died. During healing, 27 implants failed, and a further 37 failed under loading. Anterior mandible 10-year implant survival rate was 85%, posterior 83%; respective maxillary rates were 55% and 62%. Radiation dose ≥ 50 Gy gave significantly lower survival of 71%; for < 50 Gy, survival rate was 84%. The authors suggested a lower survival rate with bone resection (61% v. 83%) was because of implant overloading in relatively reduced support.

BEHAVIOURAL SCIENCE, PHYSIOLOGY

Relationship between stressful situations, salivary flow rate and oral volatile sulfur-containing compounds

Queiroz CS, Hayacibara MF *et al. Eur J Oral Sci* 2002; **110**: 337-340

Stress was related to halitosis, but not consistently to salivary flow.

In this study, 71 dental undergraduates were examined 1 week before a biochemistry exam, on the day and 1 week after; 23 women with premenstrual syndrome (PMS) were also compared with 27 who did not suffer from it, during non-menstrual, premenstrual and menstrual stages of their cycle.

Respective mean oral volatile sulfur-containing compound (VSC) measurements in the students were 74, 113 and 64 ppb, with the exam day measurement significantly higher; corresponding mean unstimulated salivary flow rates were 0.52, 0.32 and 0.57 ml/min., with the exam day measurement significantly lower. Respective VSC means for PMS women were 57, 78 and 81 ppb with the last 2 scores significantly higher; for non-PMS women, scores were 54, 54 and 76 ppb, with the groups significantly different at the premenstrual score. However, salivary

flow did not differ between groups at any stage, or within either group.

The authors consider that both endocrine and psychophysiological factors are related to oral VSC production.

BEHAVIOURAL SCIENCE; IMPLANT PROSTHODONTICS

Edentulousness and oral rehabilitation: experiences from the patients' perspective

Trulsson U, Engstrand P *et al. Eur J Oral Sci* 2002; **110**: 417-424

Recovery of self-esteem was an important motive for seeking implant-supported prostheses.

This was a qualitative study in a heterogeneous group of 18 patients (8 male; mean age 71, range 58-86 yrs) who had received fixed implant-supported prostheses. All subjects were given a structured interview lasting about 1h. The study was ended when new interviews failed to provide new information.

Self-image altered in relation to three stages of self-perception: *becoming a deviating person* included the ideas that subjects were dentally unaware earlier in life, felt guilty, and were sometimes in pain; *becoming an uncertain person* involved physical suffering, shame and lack of attractiveness; *becoming the person I once was* meant regaining health, attractiveness and status, and perceiving the fixed prosthesis as part of the subject's body.

PERIODONTICS; TOOTH LOSS

Influence of smoking on marginal bone loss and tooth loss – a prospective study over 20 years

Jansson L, Lavstedt S *J Clin Periodontol* 2002; **29**: 750-756

Smoking was related to bone loss, but not to tooth loss.

In 1990 in Stockholm, bone and tooth loss was assessed in 507 dentate individuals previously examined in a larger study 20 years earlier. In 1970, 50% were non-smokers, and this rose to 70% in 1990. Many who still smoked had reduced the quantity of cigarettes.

Individuals with unchanged smoking and non-smoking habits showed a significant association between the level of exposure and marginal bone loss. Plaque was a confounding factor in this study, as smokers scored higher, but when taken into account, the association still held. Tooth loss was not significantly related to smoking overall, but those who had greater bone loss at the start of the study were at greater risk of tooth loss.