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Implant dentistry

Use of short endosseous implants and an overdenture in the extremely resorbed mandible: a five-year retrospective study

Stellingsma C, Meijer HJA et al.
J Oral Maxillofac Surg 2000; 58: 382-387

In an extreme implant situation, the success rate over a 5–8 year period was 88%.

In each of 3 male and 14 female patients of mean age 65 yrs, 4 implants were placed equally spaced along the mandible, with the lateral implants at least 5 mm anterior to the mental foramina. In 12 patients the 2-stage Brånemark system was used, 2 were treated with 2-stage IMZ, and 3 with 1-stage ITI Bonefit. Length of implants varied from 7 to 10 mm, and diameters from 3.75 to 4.1 mm.

In each patient the 4 implants were connected with a rigid bar which was used to retain an overdenture. At the time of abutment connection, palatal mucosal grafts were placed around half the implants. During the initial healing period, 7 implants failed to osseointegrate, and after prosthetic loading 1 further implant failed. Failure did not relate to the implant system used, and implants lost during healing were replaced in 2 patients, while in 3 others, the remaining 3 implants only were used.

Subjects were followed up a mean of 77 months (range 60–97) after loading, and no major complications were reported. Lip paraesthesia was noted in 1 patient in whom it was probably consequent to a previous fracture. Minor prosthetic adjustments were made, and periimplant bone loss was minimal in most cases.

Oral surgery; trauma

An analysis of 58 traumatically intruded and surgically extruded permanent teeth

Ebeleseder KA, Santler G et al.
Endod Dent Traumatol 2000; 16: 34-39

Shallow intrusion depth and minimal surgical manipulation were beneficial to periodontal healing of these teeth.

Few clinical studies exist of management of the rare condition of traumatic intrusion. This paper, from an Austrian university clinic, covers 29 such teeth followed from 19–73 months (mid-term group: mean 40) and 29 others followed up to a definite endodontic result (mean 9 months). The mean age of subjects was 11.4 yrs. Following surgical repositioning, 48 teeth were splinted; 1 tooth was orthodontically extruded, and 9 others with shallow intrusion were allowed to re-erupt if possible.

The only difference between the healing of the 2 groups was that severe discoloration affected 6 times as many teeth in the mid-term group. In both groups, pulpal necrosis affected 60% and pulp canal

obliteration, 25%; complete periodontal healing occurred in 50%, resorption and ankylosis affecting the rest. Three teeth were lost during follow-up, one because of further trauma. The authors state that no optimal treatment exists, and that there is a need for lifelong follow-up.

Paediatric dentistry

A preliminary investigation of dental disease in children with HIV infection

Gelbier M, Lucas V et al.
Int J Paediatr Dent

Levels of disease were similar to those of other groups of chronically sick children.

This study includes 35 children aged 6 months to 18 yrs (mean 6yrs) attending a London tertiary referral centre. As yet, 5 were immunocompetent, 12 were moderately immunosuppressed, and 18 severely so. The predominant ethnic group was African (31 from Uganda), and 4 were Caucasian. A variety of antiviral, antibacterial and antifungal drugs were prescribed.

Mean dmft was 4.4 and DMFT was 0.7; plaque was present on about 30% of primary tooth surfaces and 20% of permanent surfaces, and gingivitis on 10% of each. Children with greater immunosuppression had more gingivitis. Pseudomembraneous candidiasis affected 3 children with varying degrees of immunosuppression. The authors comment that dental disease was higher in this group than in Ugandan child surveys (mean dmft/DMFT < 2), and that it was similar to other groups of children seen at the same tertiary referral centre.

Paediatric dentistry

Denture satisfaction and clinical performance in a paediatric population

Rodd HD, Atkin JM
Int J Paediatr Dent 2000; 10: 27-37

Children tended to accept upper incisor replacement with partial dentures, but there were significant clinical shortcomings.

This study covered 58 patients, with 75 missing incisors replaced by removable partial dentures, who attended a UK university paediatric dentistry clinic. Subjects started wearing such dentures at age 7 to 15 yrs (mean 11.6), and had worn one for 0.4 to 7.0 yrs (2.1). During the previous 6 years, for which most records were available, 86 'T-shaped' dentures had been made, and 19 with a palatal coverage acrylic baseplate. Both types incorporated retention by Adam's cribs.

More than 2/3 of subjects had a single tooth on the denture. In 1/3 of subjects, repairs had been required, and in nearly 2/3 a remake had been needed. In a few cases, this had happened more than once. Only 3 children reported that their friends were unaware of their denture, and nearly half wore their dentures in the day only, with nearly as many wearing them at night too. Most subjects found dentures acceptable, reasonably aesthetic, and very helpful for eating. The authors consider that the high frequency of remakes requires addressing.