

98.4% (61/62) for the immediate group. There have been some differences regarding implant localisation and the use of osteoplastic procedures between the groups.

Survival rate of immediately placed implants is similar to the late/delayed placed implants. Straight-forward surgical technique with thorough debridement of the socket, use of guided bone regeneration procedures and systematic application of antibiotics outweighs the increased risk infection and implant loss in immediate placements. As soft tissue aesthetics are expected to be superior with immediate implants, this type of implantation should be encouraged with our patients.

Pretprotetička rehabilitacija donje čeljusti nakon kompleksne dentoalveolarne traume s multiplom avulzijom zubi - prikaz bolesnika

M. Matijević, D. Leović, V. Zubčić, Osijek

Odjel za kirurgiju čeljusti i lica, Klinička bolnica Osijek, J. Huttlera 4, 31000 Osijek, matijevic.marko@kbo.hr

Traumatski gubitak zubi s defektom kosti u donjoj čeljusti težak je problem u protetskoj rehabilitaciji. U ovome radu prikazuje se mogući način rehabilitacije nakon složene dentoalveolarne traume s gubitkom svih četiriju sjekutića, očnjaka, obaju pretkutnjaka i prvoga kutnjaka u desnoj strani donje čeljusti te gubitka alveolarne kosti, uz poremećene anatomsko morfološke odnose u tome području. Da bi se zadovoljila stabilnost, funkcija i estetika protetskoga nadomjestka te prevenirala atrofija kosti, rehabilitacija je izvedena u nekoliko faza: pretprotetički kirurški pristup - vestibuloplastika i ugradnja usatka u područje defekta.

Pre-Prosthetic Rehabilitation of the Lower Jaw Following Complex Dento-Alveolar Trauma with Multiple Avulsion of Teeth: Case Presentation

Matijević M., Leović D., Zubčić V., Osijek

Department of Maxillofacial Surgery, Clinical Hospital Osijek, J.Huttlera 4, 31000 Osijek matijevic.marko@kbo.hr

Traumatic loss of teeth with bone defect in the lower jaw represents a serious problem in prosthetic rehabilitation. The paper presents a possible method of rehabilitation following complex dento-alveolar trauma with loss of four incisors, canines and both premolars, and the first molar on the right side of the lower jaw, and the loss of alveolar bone with impairment of anatomic morphological relations in this area. In order to satisfy stability, function and aesthetics of the prosthetic restoration, and to prevent bone atrophy, rehabilitation was carried out in several phases: prosthetic surgical approach - vestibuloplastics and insertion of an implant in the area of the defect.

Primjena trikalcijeva fosfata u liječenju velikih koštanih šupljina čeljusti

G. Knežević, Zagreb

Klinički zavod za oralnu kirurgiju Kliničke bolnice Dubrava, Av. G. Šuška 6, 10000 Zagreb knezevic@sfzg.hr

Trikalcijev fosfat - $\text{Ca}_3(\text{PO}_4)_2$ - resorbilna je i biokompatibilna kalcijeva fosfatna keramika s omjerom atoma kalcija i fosfata vrlo sličnim prirodnom koštanom mineralu pa se u tkivu i ponaša poput vlastitoga koštanog transplantata. Na tržištu se pojavljuje u obliku zrnaca različite veličine. Postupno se resorbira tijekom pregradnje kosti i nadomješta novim koštanim tkivom, a u oralnoj se kirurgiji uglavnom upotrebljava kod većih defekata kosti koji nastaju nakon operacija cista i tumora te u

dentalnoj implantologiji. Može poslužiti kao nosač osteoinduktivnih dodataka poput morfogenetskoga proteina te podržati njegovo djelovanje.

Najpoznatiji su predstavnici te skupine Ceros 82, Calciresorb, Sinthograft, Augmen, Implant, a od novijih Cerasorb, Bio-Resorb i Biovision, pripravci na bazi beta-trikalcijeva fosfata.

Svrha je rada prikazati dinamiku cijeljenja koštanih defekata čeljusti zaostalih nakon operacije cista, tumora ili drugih patoloških promjena koje su punjene granulatom Bio Resorba i usporediti ih s drugim poznatim metodama liječenja.

Postupak je izveden na hospitaliziranim pacijentima s njihovim pristankom u Kliničkom zavodu za oralnu kirurgiju Kliničke bolnice Dubrava. Koštani su defekti punjeni potrebnom količinom granulata veličine zrnaca od 1000 - 2000 μm . Rezultati cijeljenja subjektivno su procijenjeni raščlambom kontrolnih snimaka nakon 2, 4 i 6 mjeseci i uspoređivani s cijeljenjem istovrsnih šupljina liječenih drugim postupcima.

Od 37 pacijenata Bio Resorb je upotrijebljen u 10 slučajeva (3 radikularne ciste, 2 folikularne ciste, 2 odontogene keratociste i 3 traumatske koštane šupljine/ciste) koji su rezultirali koštanim šupljinama većim od 3 cm u promjeru. U jednome slučaju pacijentica je imala poteškoće s infekcijom pa su izbacivanje zrnaca i ponovne upalne smetnje trajali dva mjeseca poslije zahvata. U svih ostalih pacijenata nije bilo komplikacija, a obnova koštane strukture bila je završena u razdoblju od 4 do 6 mjeseci nakon zahvata. Prikazani primjeri i njihova usporedba s rezultatima dobivenim metodama ekskoleacije i dekortikacije čeljusti ili ekskoleacije i trajne poslijeoperacijske sukcije govore u prilog uporabe resorbilnoga trikalcijeva fosfata, osobito pri liječenju velikih traumatskih koštanih šupljina. Tom se metodom brže uspostavlja očekivana građa kosti nego drugim primijenjenim metodama.

Application of Tricalcium Phosphate in the Treatment of Large Bone Cavities of Jaws

Knežević G., Zagreb

Clinical Department of Oral Surgery, University Hospital "Dubrava", Av. G. Šuška 6, 10000 Zagreb
knezevic@sfzg.hr

Tricalcium phosphate - $\text{Ca}_3(\text{PO})_2$ is a resorptive and bio-compatible calcium phosphate ceramic with the ratio of calcium and phosphate atoms very similar to natural osseous mineral. Thus in the tissue it behaves like its own bone transplant. On the market it appears in the form of granules of different size. It gradually becomes entirely resorbed during the conversion of bone and substitution with new osseous tissue. In oral surgery it is mainly applied for major bone defects which occur after cysts and tumours operations, and in dental implantology. It can serve as a carrier of osteoinductive supplements, such as morphogenetic protein, and maintain its activity. The best known representatives of this group are Ceros 82, Calciresorb, Sinthograft, Augmen, Implant, while more recent are Cerasorb, Bio-Resorb and Biovision, preparations on the basis of beta-tricalcic phosphate.

The purpose of the paper is to show the dynamism of healing bone defects of the jaw, remaining after operations for cysts, tumours, or other pathological lesions, which are filled with granulate Bio Resorba, and to compare them with other well-known methods of treatment.

The procedure was carried out in hospitalised patients with their consent in the Clinical Department of Oral Surgery, University Hospital "Dubrava." The bone defects were filled with the appropriate amount of granulates, 1 000 - 2 000 μm in size. Healing results were subjectively evaluated by analysis of radiographs after 2, 4, and 6 months and compared with the healing of the same kind of cavities treated by other procedures.

Out of 37 cases Bio-Resorb was applied in 10 cases (3 radicular cysts, 2 follicular cysts, 2 odontogenic keratocysts and three traumatic bone cavities/cysts), which resulted in bone cavities larger than 3 cm in diameter. In one case a female patient