

to multiply increased amount of oxygen in the tissues. In this way hypoxia is removed which regularly occurs in numerous pathological conditions as the cause or consequence. A whole series of physiological mechanisms are normalised and improved. Perfusion of tissue and microcirculation are improved because of the reodynamic effect and neoangiogenesis. Metabolic activity is improved to subcellular level. HBO regulates local and general immunity. It acts antibacterially, particularly to anaerobes, which is of great importance in the case of oral infection. Furthermore, it also acts synergistically with antibiotics in cases of infection with resistant micro-organisms.

HBO can be applied in oral surgery in the treatment of acute and chronic inflammations of soft tissues and jaws, and also in the case of irradiated patients with tumours. It is important as a preventive prior to various operations and in the case of immunocompromised, chronic patients (diabetes, liver, kidneys etc.). It is particularly important prior to operations on bones (extraction, reconstruction of defects, implants etc.).

As contraindications are few, side-effects practically negligible, and usefulness with regard to health and cost benefit incomparably greater, it can be concluded that HBO therapy is a very important, powerful and modern means of treatment, which has recently become available in the University Hospital "Dubrava".

### **Oralna rehabilitacija pacijenta s ograničenim otvaranjem usta uzrokovanim ratnom ozljedom mekih i tvrdih tkiva gornje čeljusti**

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#### *Sažetak*

U radu je prikazana oralna rehabilitacija pacijenta s ograničenim otvaranjem usta uzrokovanim ratnom ozljedom mekih i tvrdih tkiva gornje čeljusti sa svrhom da se postigne zadovoljavajuća estetika, povoljno opterećenje zuba nosača te, u konačnici, da se pronade najpovoljniji smjer uvođenja mobilno-protetskih nadomjestaka izbjegavajući pritom ozljede mekih struktura lica.

Pacijent je opskrbljen gornjom djelomičnom protezom s reduciranom metalnom bazom, retiniranom konus kronicama te donjom potpunom protezom s mogućnošću da se ona poslije prilagodi u mandibularnu pokrovnu protezu retiniranu usadcima.

### **Oral Rehabilitation of a Patient with Restricted Opening of the Mouth Caused by a Combat Injury of the Soft and Hard Tissues of the Maxilla**

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#### *Summary*

The paper presents the oral rehabilitation of a patient with restricted opening of the mouth, caused by a combat injury of the soft and hard tissues of the maxilla, with the object of achieving satisfactory aesthetics, sufficient loading of the abutment teeth and, finally, finding the most suitable course for introducing a mobile-prosthetic restoration, and at the same time avoiding damage to soft facial structures.

The patient was supplied with upper partial dentures with a reduced metal base, retained with conus crowns and a lower full denture with the possibility of its later adaptation into a mandibular overdenture retained by implants.

### **Procjena gustoće mandibularne kosti u veslača ovisno o indeksu mase tijela**

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#### *Sažetak*

Sile naprezanja mišića koje se razvijaju u svakodnevnoj tjelesnoj aktivnosti potiču proces koštane formacije u područjima hvatišta napregnutih mišića, a to pojačava mineralni sastav kosti i povećava njezinu gustoću.

Svrha ovoga istraživanja bila je procijeniti gustoću mandibularne kosti u skupini aktivnih veslača, usporediti izmjerene vrijednosti s vrijednostima dobivenima u kontrolnoj skupini te istražiti postoji li statistički znatna razlika u ukupnom uzorku ovisno o različitom indeksu mase tijela ispitanika.

U istraživanju je sudjelovalo osam aktivnih veslača i sedam ispitanika u kontrolnoj skupini. Svim ispitanicima izrađeni su ortopantomogrami, a vrijednosti gustoće izmjerene na njima izražene su u ekvivalentima debljine bakrenoga kalibracijskoga klina.

U svim točkama izmjerenima s desne i lijeve strane angulusa mandibule mandibularna gustoća u veslača bila je viša od iste u kontrolnoj skupini. Također je u svim točkama izmjerenima s desne i lijeve strane angulusa mandibule mandibularna gustoća u skupini s višim vrijednostima indeksa mase tijela bila veća od iste u skupini s nižim vrijednostima indeksa mase tijela. Statistički znatna razlika nije zabilježena ( $p > 0,05$ ).

Pojačana tjelesna aktivnost neminovno dovodi do zgušnjavanja koštane strukture u područjima hvatišta napregnute mišićne skupine, a u svrhu kompenzacije djelovanja sile naprezanja na okolno tkivo.

### Assessment of the Density of Mandibular Bones in Rowers, Depending on Body Mass Index

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#### Summary

The forces of muscular exertion which develop during daily physical exercise stimulate the process of bone formation in the areas of the insertions of the exerted muscles, resulting in the strengthening of bone, in terms of increased mineral component of the bone and increase in its density.

The object of this study was to assess the density of mandibular bones in a group of active rowers, compare the measured values with values obtained in a control group and to examine whether there is

statistically significant difference in the total sample, depending on the different body mass index of the subjects.

Eight active rowers took part in the study and seven subjects in a control group. An orthopantomogram was performed in all subjects and the values of density measured on them were expressed in equivalent thickness of the copper calibration pin.

In all points measured from the right and left sides of the angulus mandible mandibular density in rowers was higher than the same in the control group. Furthermore, in all points measured from the right and left side of the angulus mandible mandibular density in the group with higher values of body mass index was higher than the same in the group with lower values of body mass index. No statistically significant difference was recorded ( $p > 0,05$ ).

Increased physical activity inevitably leads to thickening of bone structure in the areas of the insertions of the exerted group of muscles and in order to compensate for the effect of the forces of exertion on surrounding tissue.

### Učinak klorheksidina na oralnu bakterijsku kolonizaciju i razvoj nozokomijalnih infekcija u životno ugroženih bolesnika

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#### Sažetak

Ciljevi: Zabilježiti u bolesnika na odjelu intenzivnog liječenja učinak dekontaminacije dentalnoga plaka i bukalne sluznice antiseptikom na kolonizaciju potencijalno patogenim nozokomijalnim bakterijama i razvoj nozokomijalnih infekcija.

Vrsta: Dvostruko slijepa prospektivna poredbena studija zasnovana na nasumce odabranom uzorku.

Mjesto: Odjel intenzivnoga liječenja s 12 kreveta u Kliničkoj bolnici "Dubrava", Zagreb.