

The scientific contribution of the study is the possibility of comparing the obtained results with the results of other authors. The obtained results are also indicators for the application of an adequate programme of preventive measures in the examined population.

## Laser u implantologiji

**A. Šegedin, V. Bossi, Zagreb, San Dorligo della Valle (TS), Italija**

Privatna stomatološka ordinacija  
Ljubljana 16/A, 10000 Zagreb

Lasersko zračenje  
Međudjelovanje laser-tkivo  
CO2 laser  
Er:Yag laser  
Diodni laser  
Nd:Yag laser  
KTP laser

Danomice je sve veća uporaba lasera u stomatologiji, a samim tim i u oralnoj kirurgiji. Na području implantologije laserskom se terapijom postižu izvrsni rezultati u fazi postoperativne boli i otekline, te se bitno skraćuje vrijeme zaraštanja rana. Koristeći s pozitivnim učinkom laserske terapije na koštanu regeneraciju, ubrzavamo i oseointegraciju titan-ske slitine s kosti. Postoperativne komplikacije, npr. periimplantitisi i periimplantni mukozitisi, minimalne su zbog potpune dekontaminacije područja. Osim toga moguće je vrlo uspješno modelirati meka i tvrda tkiva u potpunoj sterilonosti, bez krvarenja, uz minimalnu traumu i uporabu anestezije. Dakle, laser u kombinaciji s konvencionalnim metodama omogućuje znatno veći postotak uspješnosti terapije. Izazov svakog kliničara u svim granama stomatologije, pa tako i u implantologiji, jest znati kako, kada i gdje upotrijebiti određenu tehniku. Zato je važno znati načelo rada pojedinoga tipa lasera, vrijeme ekspozicije tkiva, te učinak različitih valnih duljina na tkivo kako bi se postignuli optimalni rezultati.

## The Laser in Implantology

**Šegedin A., Bossi V., Zagreb; San Dorligo della Valle (TS), Italy**

Private Dental Practice  
Ljubljana 16/A, 10000 Zagreb

Laser radiation  
Interaction of laser-tissue  
CO2 laser  
Er: Yag laser  
Diode laser  
Nd: Yag laser  
KTP laser

Everyday increasing application is found for the laser in dentistry, and thus also in oral surgery. In the field of implantology, excellent results have been achieved by laser therapy in the phase of post-operative pain and swelling and greatly reduced period of wound healing. By utilising the positive effect of laser therapy on bone regeneration we can also accelerate osseointegration of titanium alloy with bone. Postoperative complications, e.g. peri-implantitis and periimplant mucositis are minimal because of complete decontamination of the area. Furthermore, it is possible to very successfully model the soft and hard tissue in complete sterility, without bleeding, and with minimal trauma and use of anaesthesia. Thus, the laser in combination with conventional methods enables a significantly greater percentage of successful therapy outcomes. A challenge for every clinician in all branches of dentistry, and thus in implantology, is to know how, when and where to use a certain technique. Consequently it is important to learn the principle of work for each type of laser, period of tissue exposure, and the effect of different wavelengths on tissue in order to achieve optimal results.