

## IMPLANTS' SECOND STAGE SURGERY TECHNIQUES

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### SUMMARY:

The sufficiency of attached gingiva (AG) around teeth and fixed restorations is a sign for absence of local traumatic factors from dental or soft-tissue origin. Nevertheless the supporters are natural teeth or implants, the attached gingiva around the restoration is a guarantee for long-term, aesthetic and functional prosthetic restorations. This refers particularly to the attached gingiva around the implants –periimplantitis develops quickly due to its absence. Different techniques can be used for implants' second stage surgery time – uncovering with puncher, with ceramic bur, with electrosurgery , with partial thickness flap, with partial thickness flap and inserted connective tissue graft, with partial thickness flap and free epithelial-connective tissue graft.

**Key words:** attached gingival, periimplantitis, connective-tissue graft

### PURPOSE:

The aim is to ground the necessity of personal approach in every implant's second stage surgery time, depending on the attached gingiva amount.

### INTRODUCTION:

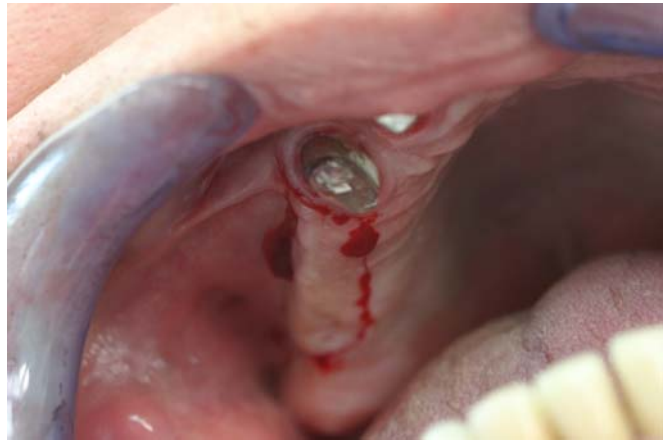
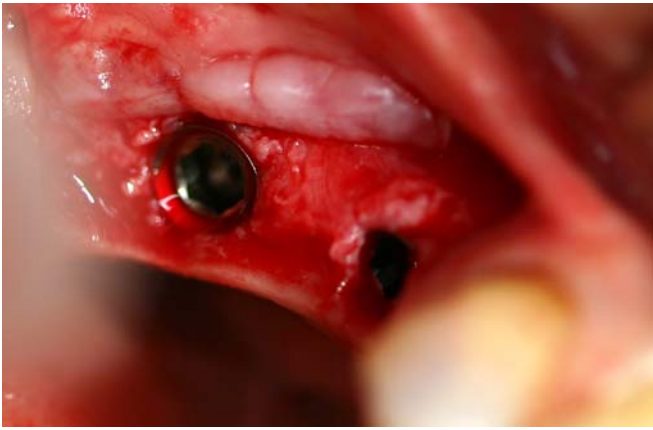
Sometimes, no matter what the manipulations are, the approach to the clinical case is considered neither with the strictly individual peculiarities of the particular patient, nor

even with any single part of the prosthetic field. Specifically, at implants' second stage surgery time, this leads to attached gingival loss. There is no other criterion, defining which second stage surgery technique and when should be used, except the attached gingiva amount – but not at the second surgery, while the presumed amount in the end of the healing period. Minimum invasive methods, like these with puncher and ceramic bur, are tempting due to the fact they save time at the second stage surgery and also in the healing period. There is neither blood, nor sutures. These advantages don't excuse the oversight of a surgical stage, in which except the uncovering of the implants, the attached gingival could be preserved or even extended. It is also important that, if the patient has a choice, he/she will always prefer a minimum invasive approach. The creation of attached gingiva should be included in the treatment plan yet, so the patient to be prepared for the nature of this surgical stage.

### METHODS AND MATERIALS:

18 patients with 59 placed after closed method implants on upper and lower jaw. The amount of the AG differs in each patient. Five second stage surgery techniques were used: 4 implants with a puncher; 6 – with ceramic bur; 7 only through incision; 41 with partial thickness flap and 1 with partial thickness flap and inserted connective tissue graft. The used sutures were 5 - 0 monofilamental ones.





**RESULTS:**

At all patients, at who the technique with partial thickness flap was used, the amount of AG was significantly increased. At the incision technique no AG was lost. At the only case with partial thickness flap and inserted connective tissue graft was achieved a very high red aesthetics. At the cases with puncher and ceramic bur part of the available AG was lost.

## DISCUSSION:

It can be said that periodontology is the corner-stone of contemporary dental medicine. Without depreciating the other specialties, it should be mentioned that this is the specialty, intertwining to great extent with the others and is so much responsible for the aesthetics, prophylaxis and long-term functional suitability of direct and indirect restorations. Several years ago it was thought that implantology was extremely surgical specialty and was arguing about the role of the prosthodontist in the total implantologic planning and treatment, but today it is un-

equivocally proven that without the adequate periodontal view of the whole treatment period, the final result is compromised and unpredictable.

## CONCLUSIONS:

It is recommended, when the AG is less than 4 mm, implants' minimum invasive second stage surgery techniques not to be used. When the healing period of implants' second stage surgery is completed, the remaining AG shouldn't be less than 2 mm.

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## REFERENCES:

1. Periimplantitis. S6nchez-G6rres M. A., Gay-Escoda C. *Med Oral Patol Oral Cir Bucal*. 2004;9 Suppl:69-74; 63-9. English, Spanish.
2. Hoelscher D. C., Simons A. M. The rationale for soft-tissue grafting and vestibuloplasty in association with endosseous implants: a literature review. *J Oral Implantol*. 1994;20(4):282-91.
3. Schou S., Holmstrup P., Stoltze K., Hjrting-Hansen E., Fiehn N. E., Skovgaard L. T. Probing around implants and teeth with healthy or inflamed peri-implant mucosa/gingiva. A histologic comparison in cynomolgus monkeys (*Macaca fascicularis*). *Clin Oral Implants Res*. 2002 Apr; 13(2):113-26.
4. Simons A. M., Darany D. G., Giordano J. R. The use of free gingival grafts in the treatment of peri-implant soft tissue complications: clinical report. *Implant Dent*. 1993 Spring;2(1):27-30.
5. Zitzmann N. U., Berglundh T, Ericsson I, Lindhe J. Spontaneous progression of experimentally induced peri-implantitis. *J Clin Periodontol*. 2004 Oct; 31(10):845-9.

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