

Combination of scalpel and laser-aided, **second-stage surgery** in the atrophic edentulous mandibula

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In this case report the sensible combination of a conventional surgical second-stage approach with the use of a Diodeum Laser is shown.

_case 1



Fig. 12

Fig. 1 Situation before second-stage surgery. Massive bone loss with shift of the muco-gingival line and lift of the sublingual area.

Fig. 2 Revealed implants after split flap preparation and fixture of the attached gingiva to the labial and lingual aspect with interrupted sutures.

Fig. 3 Conditioning and modelling of the soft tissues with a Diodeum Laser (Oralia). Simultaneous coagulation of the submucosal tissue is an accompanying effect.

Fig. 4 A clear operation site after soft tissue conditioning with the Diodeum Laser.

_The severely atrophic edentulous mandibula is predestined to be treated with implants in the symphyseal region. Often this is the only way to achieve patient satisfaction and to give a higher level of live quality back as well as function by this relatively simple treatment. The quality and quantity of bone in this region often allows an easy surgical protocol.

Due to a long period of missing teeth, the vertical decrease of bone is combined with a negative effect on the soft tissue. The loss of vertical height of the alveolar ridge is connected with

an elevation of the sublingual area and the transfer of the muco-gingival line upwards. A permanent stable and healthy peri-implant mucosa can only be achieved by a broad margin of keratinized attached gingival.

The patient should be enabled to keep up a perfect oral hygiene especially in the area of implants and the meso-structures. But reality often shows us different things. Plaque and stains on the oral retaining components are not that rare, and this is the reason why professional care four times a year by a DH is mandatory for all of our implant patients.

The peri-implant soft tissues should be conditioned at second-stage surgery. Missing attached gingiva can be enhanced by the use of CTG's (connected tissue grafts) from the palatum. Thus, a second operation field is necessary and sometimes refused by older patients. This case report shows how the soft tissue situation can be improved with second-stage surgery around four interforaminal implants in the mandibula.

_Case Report

A 72-year old female with a good health situation in



Fig. 1



Fig. 2



Fig. 3



Fig. 4