

A COMPREHENSIVE APPROACH TO RESTORATION OF EDENTULOUS MANDIBLE

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ABSTRACT

The purpose of the present communication was to propose a comprehensive approach to rehabilitation of edentulous mandible with advanced alveolar ridge atrophy. We propose plastic surgery of the soft tissues in the vestibule by shifting them caudally, inserting implants in the frontal area, bridging them with a connecting beam and building a complete denture on it. The advantage of the soft tissue plastic surgery is that it allows dentists to make a normal lower jaw complete denture.

Key words: edentulous mandible, rehabilitation, dental implants.

INTRODUCTION

A primary objective of every implant dentist is to make implants last as long as possible. How long implant survival depends on how strongly the epithelial and connective tissues adhere to the titanium surface of the implant and on the amount of the peri-implant gingiva attached to the implant. When peri-implant gingiva is inadequate dentists should create conditions for its augmentation. The marginal gingival outline not only provides the esthetic appearance but also prevents the occurrence of bone pockets, gingival recession, and any bacterial contamination, all of which increase the survival time of the implant.(1, 2, 3)

The purpose of the present communication was to propose a comprehensive approach to the rehabilitation of edentulous mandible with advanced atrophy of the alveolar ridge.

Case description

We report a female patient (V.A., aged 41) who visited Dentalux Dental Centre in Plovdiv complaining of her lower jaw complete denture hurting her, moving while speaking making it difficult for her to eat. Prior to this she had visited several dental surgeries for the same purpose: she was told she could not have a well fitting complete denture that could adhere well and cause no injuries because of the advanced atrophy of the alveolar ridge.

On examination we found an edentulous lower jaw with severely atrophic alveolar ridge, the movable gingiva on

one level with the ridge and very narrow space allowing no kind of prosthesis even if implants were used. The maxilla was also completely edentulous rehabilitated with a good upper denture.

After analysing the clinical data and x-rays tests we proposed the following treatment plan:

For the upper jaw

- Total vestibular plastic to provide enough attached gingiva to hold a complete upper jaw denture.

For the lower jaw

- Total vestibular plastic to create enough attached gingiva to make enough space for insertion of implants on which to build a complete lower jaw denture. (Fig.1)

- Placement of 4 implants in the anterior areas that would provide good retention of the complete denture of the lower jaw. (Fig.2)

Because of the advanced atrophy of the alveolar ridge and a danger of instability of the implants we connected them with a beam.

- Fabrication of mandibular complete denture fixed to the connecting beam. (Fig.3, Fig.4)



Fig. 1. Total vestibular plastic



Fig. 2. Placement of 4 implants



Fig. 3. Connecting beam.



Fig. 4. Complete denture

CONCLUSION:

The approach we propose here for the creation in advance of enough attached gingiva before placing implants allows dentists to create conditions for stable and long survival of the implants.

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