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Case Report»

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A case report.

Treatment of a severly resorbed mandible with endosseous implants in an immediate loading protocol

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Abstract

This article reports on the implantological treatment in the atrophied lower jaw. To avoid augmentations and nevertheless equip the distal mandible with endosseous implants, we have used basal implants in such a way, that the base plates were positioned below the alveolar nerve in the region of the canines, and above the nerve distally to the area of the 2nd molar. All implants were immediately splinted and thereby loaded with a circular bridge. The aesthetical and functional outcome was satisfactory. By using this technique a secure distal bridge support is available for almost all patients. The placement of base-plates below the lower alveolar nerve is a useful technique.

Keywords:
Basal implants, Diskos®, treatment of mandibular atrophy, immediate loading, avoiding augmentations.

Introduction

The conventional dental implant treatment imposes difficulties, when it comes to treat the severely atrophied mandible. This case report demonstrates advantages of a treatment approach with basal implants

Material and Method

A 65-year-old female patient without any generalized diseases requested implant treatment in the mandible. The patient was edentulous in both jaws The preoperative panoramic view (Fig. 1) revealed a pronounced atrophy. After evaluating all alternatives, it was decided by the patient to undergo treatment with basal implants. To overcome the problems caused by the atrophy and allow the installation of a wider load transmission areas, the base plates of both anterior implants were positioned below the alveolar nerve , .

Technique:

In local anasethesia a wide flaps were prepared on each side of the mandible to allow surgical access from the lateral aspect. The vertical slot for the mesial basal implants was prepared. Into the bottom part of this osteotomy the horizontal slot for the base plate was prepared to a width of 9mm and a height of 0.6 mm. Basal implants require vestibular and lingual engagement. Therefore the necessary diameter of the plate is determined by the clinical situation.

After placing two more implants distally, the flap was closed and sutured. Healing was uneventful, no paraesthesia was reported. The definitive bridge was delivered on day three postoperatively. Fig. 2 shows the case 8 years postoperatively

Conclusion

The usage of basal implants allows treating also those patients in a single surgical approach, which need the treatment most. The procedure avoids the burdens and costs of bone augmentations and leads to immediate function and customer satisfaction. Placing the base plates below the mandibular nerve makes the treatment more practical. The width of the mandible instead of the height is utilized for stabilizing these implants. Basal implants are safe and effective treatment devices , , , . Their use should be considered when patients with atrophied jaw bones request dental implant treatment.

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Conflict of interest statement

Prof. Dr. Stefan Ihde declares that a potential conflict of interest may exist due to his employment in the Dr. Ihde Dental group of companies (www.implant.com)

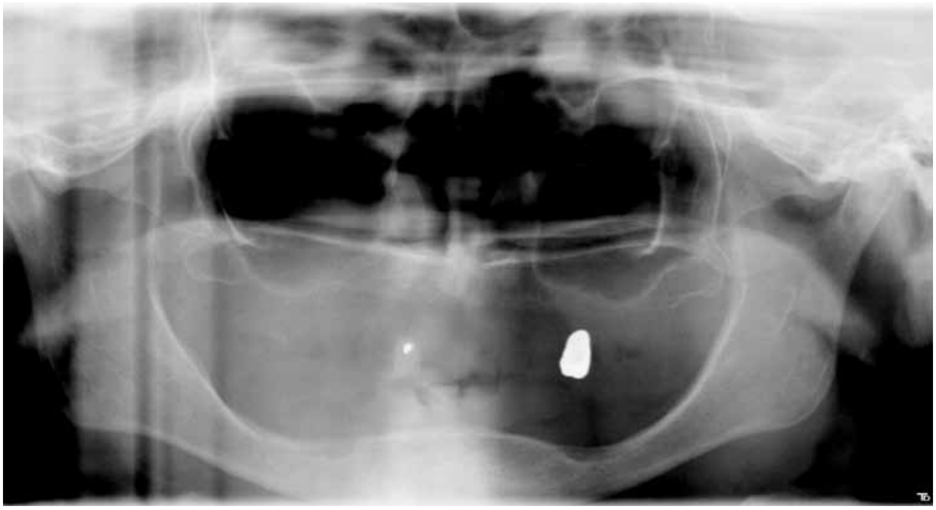

Fig. 1: The severly resorbed mandible before implant therapy.

Fig. 2 : 8 years postoperative radiograph showing the implants and the prosthetic restoration. No vertical (crater-like) bone loss is observed.

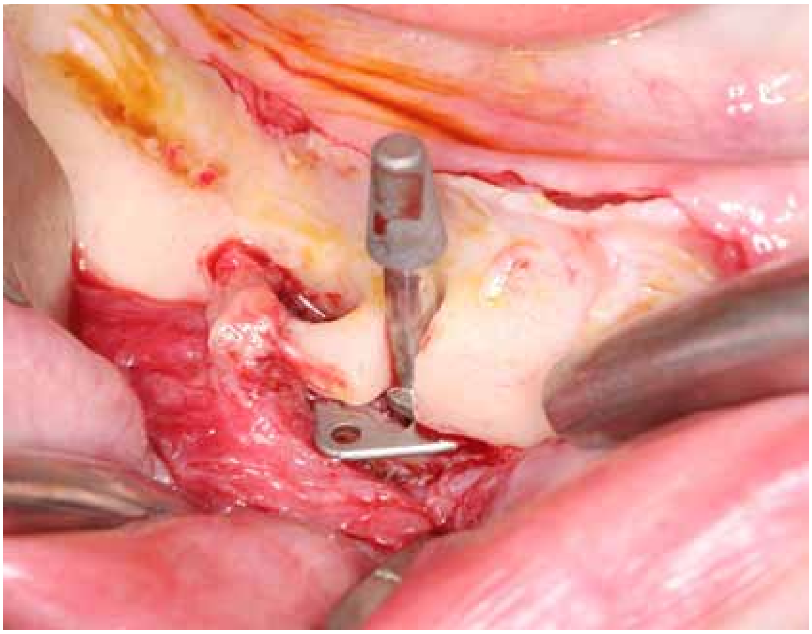

Fig 3: Insertion of a basal implant with the base plate positioned below the mental nerve.