

Case Report

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Biodenta® Tissue level Implants for maintaining missing teeth in the mandible.

Introduction

Restorations on implants can also be utilized for increased wearing comfort, also functionality which can provide a better quality of life. In the following case report, the necessity and the prospects of success depend on the actual bone condition and the vitality of the remaining dentition.

Case report

Prior to implant treatment, a 45 year old patient was wearing a removable denture in the mandible. The denture was built for the rehabilitation of their chewing function. The teeth replaced should be 46, 47 and also 36, further teeth 17 and 26 should be replaced with conventional crowns.

The patient felt discomfort when wearing the denture as well as during mastication. After a detailed consultation by the restorative dentist and the implant surgeon. The decision was to replace the missing teeth with implant supported restorations. (Fig. 1, 2 and 3)

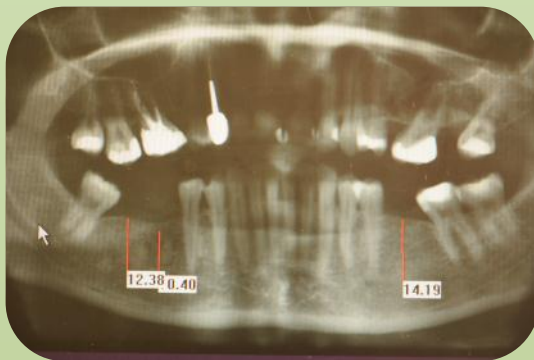


Fig. 4: Bone measurement of the vertical height

The vertical height and bone measurement including the aid of the OPG, showed sufficient bone substance at the sites where the implants should be placed. At all implant sites Biodenta® Tissue level implants will be placed.

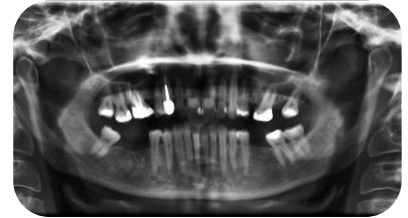


Fig. 1: Pre surgical OPG



Fig. 2 PA x-ray

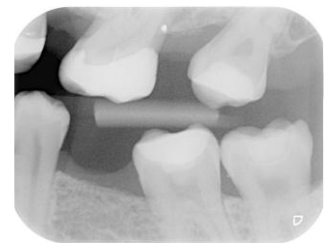


Fig. 3: PA x-ray

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3 Biodenta® tissue level implants were placed in two-phase treatments. In the mandible at positions 36, 46 and 47 the placement of 4.1 diameter (RP) length 10mm. (Fig. 5)

Restorations which are accomplished simultaneously in the maxilla and mandible have huge advantages. However can also hold complications. e.g. the occlusal height could change if a complete quadrant is reconstructed at the same time, or two opposed quadrants will be reconstructed at the same time.

The final reconstruction may have to be extensively adjusted on the occlusion inside the mouth, due to a minor provisional reconstruction. When implant-reconstruction is required or strongly recommended and where there are no stresses or strains on the implants placed, for achieving osseointegration.

A review x-ray with the impression-caps (Fig. 8) is always recommended to assure a correct placement of the impression-caps.

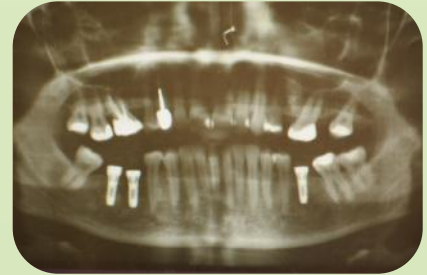


Fig. 5: OPG post implant placement



Fig. 6: healing caps 2mm in height



Fig. 7: Impression of the preparations in the maxilla.



Fig. 9: Maxilla model



Fig. 10: Mandible model



Fig. 8: OPG in the mandible with impression-caps before Taking an impression

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Fig. 11: Individualized standard abutment

The insertion of the individualized abutments is completed by the use of the torque wrench. The abutments are tightened with 35Ncm inside the mouth. (Fig. 11,12 and 13) In this case the standard abutments were individualized by a dental lab.



Fig. 12: : individualized standard abutments



Fig. 13: Individualized standard abutment



Fig. 14: Final reconstruction in the maxilla

The final reconstruction out of ZrO₂ on the lab models is shown at Fig. 14, 15, 16 and 17)



Fig. 16: Lateral view



Fig. 15: Final reconstruction in the mandible



Fig. 17: Lateral view

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A review x-ray after 6 month shows the typical bone-reconstructing-paradigm of the tissue-level-implants: stable bone-level from the first thread on. (Fig. 19 and 20)



Fig. 20



Fig. 21



Fig. 22



Fig. 23



Fig. 24



Fig. 25: Cemented reconstruction in the maxilla



Fig. 26: Cemented reconstruction in the mandible

Clinician

Dr. med. dent. Steffen Ulbrich is member of the ITI and the AACD. In cooperation with the clinic of Prof. Sailer in Zürich.

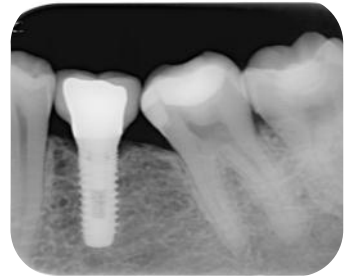


Fig. 18: PA X-ray after cementation in the mandible



Fig. 19: PA x-ray after cementation in the maxilla



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