Bone-oriented implantation with wide implant diameters

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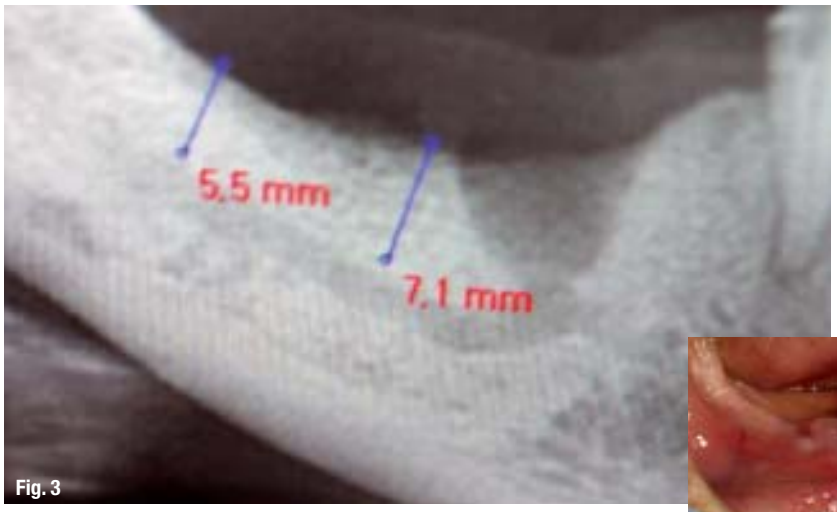

Fig. 3

Fig. 1_Initial situation region 46, 47.
Fig. 2_Occlusal view of the bone.
Fig. 3_OPG and CT planning before the implantation.
Fig. 4_Surgical situs: wide bone.
Fig. 5_Preparation of the implant bed with a trepan drill.

_In many cases, an implantation is possible using complex technologies like GBR, sinus lift, or nerve transposition only. Since the own bone still represents the best support, with a sufficient width of the jaw ridge, the existing bone support can be optimally used with wide body implants (diameter 6 or 7 mm, Clinical House, PerioType XL implants). Even for small vertical heights (<8 mm), a large area is anchored in the bone due to the wide diameter. The advantages of these implants will be demonstrated with a case report.

_Introduction

Especially with a limited bone supply, the patient faces a number of preparatory measures. Each of these augmentative techniques is accompanied by risk potentials. Although the sinus lift seems to have emerged as the standard today, still a variety of complications are known. Beside lacerations of the mucosa of the maxillary sinus, which can result in infections during the operation or during healing, insufficient bone formation, and rejection (infection) of the augmentate are consequences, which may be observed. In the literature, their frequency is stated at 5–15%. Considering surgery, this may still sound successful, but in fact a very strict standard must be applied to elective surgery. Surely the training and the experience of the attending physician are closely related with the complication rate, but even experts observe, that the desired result is not always achieved. Then, however, corrections in an inflamed maxillary sinus are particularly difficult. It also cannot be taken for granted that in all cases the complex assemblies ossify to the extent, the attending physician wishes for. Subsequently, only moderate osseointegration takes place at the implant. The loss is pre-programmed.


Fig. 1


Fig. 2


Fig. 4


Fig. 5

In other situations, the bone supply in the lower jaw is that scarce above the nervus alveolaris inferior that the decision for a nerve transposition is made. This procedure includes numerous possibilities for complications for the patient. In 25–50% of the treatments, there are slight to severe disturbances of sensation over a long period. At over 20%, these nerve damages remain permanently. This allows the ques-tion as to how valuable an implant is compared to a healthy nerve.

To avoid complex bone assemblies in the individual case and thus spare the patient additional risks, there is the possibility, at the presence of suitable anatomical prerequisites, to insert an implant with a particularly large diameter. The area then grown into the bone often is sufficient for a prosthetic use of the implant. In addition to other implants or as a combination of several short, but wide implants, a suitable bone support may be optimally used.