tions were displayed. The length of the flap could be increased with the help of a periost slitting. Under conditions of constant cooling, the scope of the lateral access window was primarily centered and secondarily removed with a rose borer for better viewing of the membrane. The window was closed carefully by applying pressure from the caudal to the cranial. The cutting membrane could not be mobilized without any injury and moved to a new cranial position. The filling of the created cavity was done with the initially-created bone replacement mixture in accordance with the customary method. The augmented unit was protected by a bio-absorbing membrane (Osseo Quest from Gore Company). The wound was closed with ePTF sewing material (Gore-Tex from Gore Company). The healing took place without any complications (Figure 3).

The implantation was conducted after six months. The quality of the newly gained bone was graded as D3 (Starter from Bio Horizons company) in the framework of the explorative boring. The pilot bores were placed in the future insertion positions with the boring stencil. The implant alveola was enhanced with the help of osteotomes. This way the bone density around the implant could be increased through compression.

Implant selection (Maestro, Bio Horizons Company):
• Tooth 14 = D4, length 10 mm, diameter 4 mm
• Tooth 15 = D4, length 10 mm, diameter 4 mm
• Tooth 16 = D4, length 9 mm, diameter 5 mm

The implants were inserted mechanically with the following torque values:
• 14 = 45 N/cm²
• 15 = 20 N/cm²
• 16 = 20 N/cm²

The wound was sealed tightly with ePTF sewing material (Gore-Tex from Gore Company). The wound healing process did not have any complications (Figure 4). The implants were released after exactly five months and they were provided with healing caps. The gingival healing progressed according to expectations and lasted 14 days. There was a deformation with open tray. The seat of the impression post (= introduced post) was checked through radiography. The articulation took place in a medium value articulator. The usual bite registration process allowed the articulation of the counter jaw.

A prosthetic implant distinguishes itself through optimal topographical placement in a specially created bone bed. A specialty of this system is that definitive construction can be used as temporary construction, impression post and as definitive construction. This means cost savings for the patient. The titanium abutments were prepared in the laboratory (Figure 6). An identification key (Figure 7) made of Resin Pattern (GC company) was created in the laboratory, so that the construction could be integrated easily and with precision.

The created prosthetic restoration (Figures 8, 9) can be described as follows:
- Blocked single crowns, shaped especially for effective hygiene,
- Blended with ceramics,
- Surface shaped proximal ratios (optimized for oral hygiene measures),
- Meagre palato-vestibular platform,
- Inter-occlusal encryption with the help of “B” and “C” contacts.

The constructions were placed in situ with the help of the identity key (Figure 10). The radiography test confirmed the exact fit (Figure 5). The titanium screws of the construction were drawn with 25 N/mm². The prosthetic restoration was cemented with IM (Nobel BioCare Company). The occlusal contact ratios (Figure 11) and the cleaning capability were checked. The patient was released after a control period in a routine recall.

Summary
The reconstruction of maxillary free end gaps represents a special challenge to diagnostics, therapy and material selection as well as to patient and dentist. The precise indication enables the determination of treatment protocols, the strict observation of the existing protocol, the selection of suitable instruments, augmentation material and technology. The targeted selection of the implant, paying special consideration to the architecture, guarantees optimum results.

(A complete list of references is available from the publisher.)

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