

Vertical ridge augmentation with simultaneous implant placement in the central incisor area of the upper jaw

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Patient: 40 year old.

Clinical situation: A missing central incisor with vertical defect.

Treatment plan: Vertical ridge augmentation with NeoGen® Ti-Reinforced Membrane - Medium Interproximal and simultaneous implant placement of Neoss ProActive® Straight implant.



Figure 1

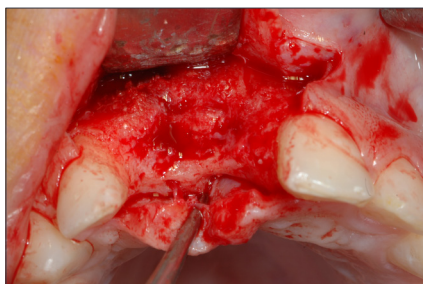


Figure 2

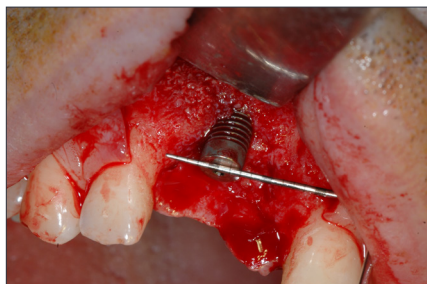


Figure 3

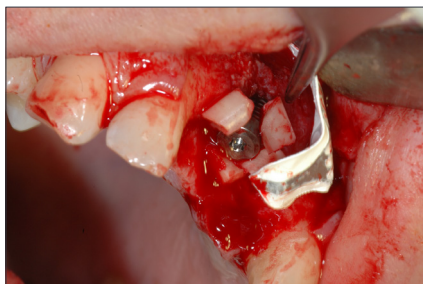


Figure 4

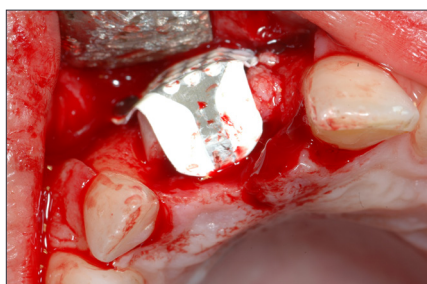


Figure 5

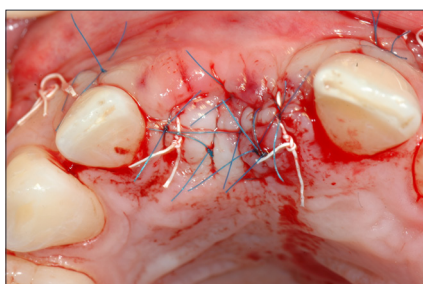


Figure 6

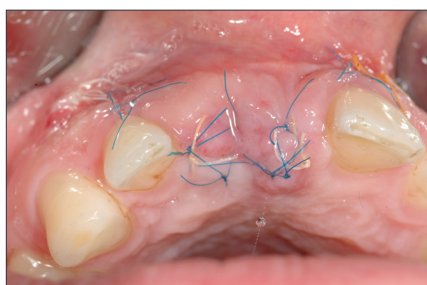


Figure 7



Figure 8

A 40 year old patient presented with a missing central incisor and a resorbed ridge (Figure 1). A full thickness flap with releasing incisions was opened, revealing a large vertical defect (Figure 2).

A Neoss ProActive® Straight implant was placed on an 8 mm vertical defect (Figure 3). Autogenous bone cylinders (3.4 x 4-5 mm) were harvested from the oblique line of the mandible in the molar region and placed around the implant to accelerate regeneration and to act as space fillers (Figure 4).

A Neogen® Ti-Reinforced Membrane Medium Interproximal was trimmed, shaped, and fitted at the surgical site and secured buccally with two tacks (Figure 5). Stress free flap closure was achieved by releasing the periosteum on the buccal side (Figure 6).

The soft tissue healing was uneventful (Figure 7-8).

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Figure 9



Figure 10

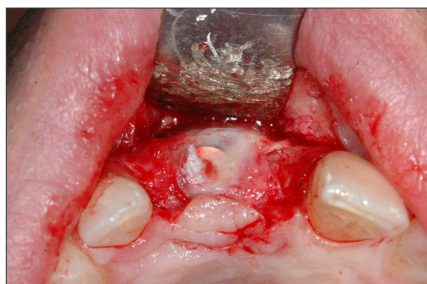


Figure 11

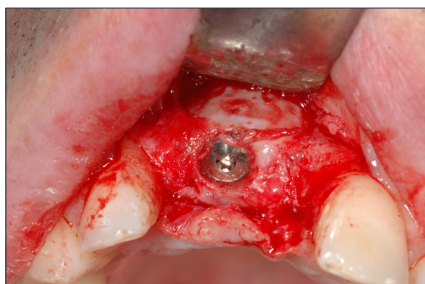


Figure 12

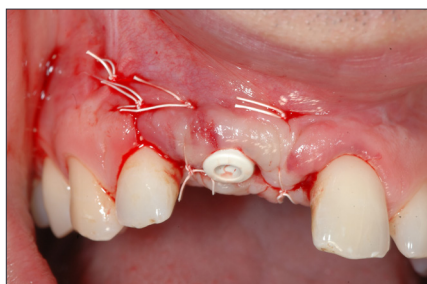


Figure 13

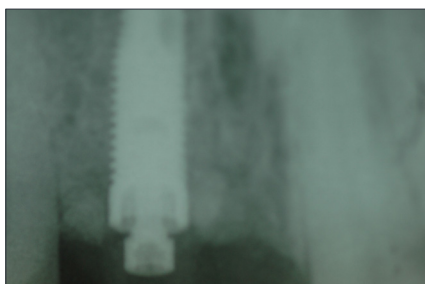


Figure 14

After 6 months, second stage surgery was performed. A mid-crestal incision with releasing incisions was used (Figure 9). The flap was lifted to expose the membrane (Figure 10). The soft tissue can easily be separated from the membrane after healing.

The membrane was removed. Newly formed bone fills the entire space created by the membrane (Figure 11). Excess bone on top of the cover screw was removed to get access to the implant (Figure 12).

A PEEK healing abutment was connected to the implants and the flap was closed (Figure 13). Radiograph taken directly after abutment connection shows that bone has been successfully regenerated up to the level of the implant platform (Figure 14).