

A one-visit sinus lift approach with the Neoss ProActive® 6.5 mm wide implant – A long-term clinical follow-up

Dr. Wim van Thoor, Germany

Patient: 52-year-old woman suffering from severe periodontitis.

Clinical situation: Limited residual bone height below the sinus required extraction of the first upper left molar.

Treatment plan: Extraction of first upper molar, perform a direct sinus lift and immediate placement of a Neoss ProActive 6.5 mm wide implant, all in one visit.



Figure 1



Figure 2



Figure 3

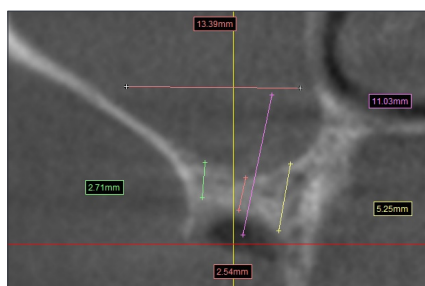


Figure 4

A patient suffering from severe periodontitis required extraction of the first upper left molar, position 26 (Figure 1).

Periodontal problems and alveolar bone ridge atrophy in the posterior maxilla was confirmed by intra oral radiographs, indicating the need for a sinus lift to allow for implant placement (Figure 2).

The first upper left molar was atraumatically extracted (Figure 3).

A CBCT was taken to quantify the limited residual bone height and width situation (Figure 4).

The bone height was found to be less than 4 mm, thus a lateral window approach was chosen for the sinus lift. A small lateral window was drilled using a specialized drill kit (Sinus Lateral Approach Kit, Neobiotech), and by keeping the lateral window small, faster healing and greater graft material stability could be achieved (Figure 5).



Figure 5

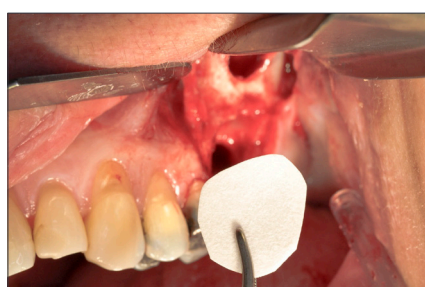


Figure 6

A trimmed resorbable collagen membrane (Biomend, Zimmer Biomet) was placed in order to protect the very thin Schneiderian membrane from perforation during implant placement (Figure 6 and 7).

To build bone, the augmentation was filled with hydrated particulate allograft (Puros, Zimmer Biomet) (Figure 8).



Figure 7



Figure 8

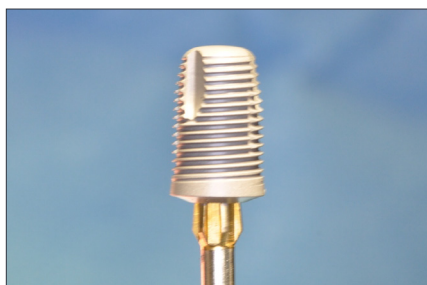


Figure 9

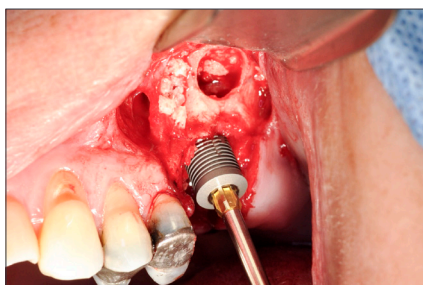


Figure 10

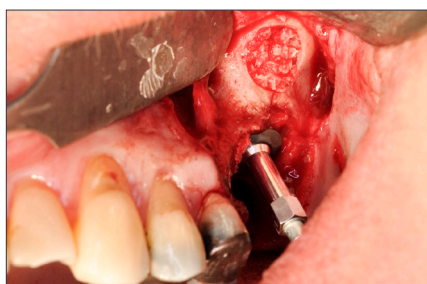


Figure 11

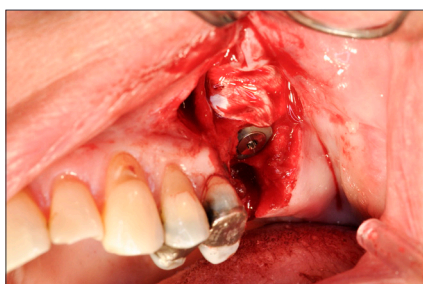


Figure 12



Figure 13



Figure 14

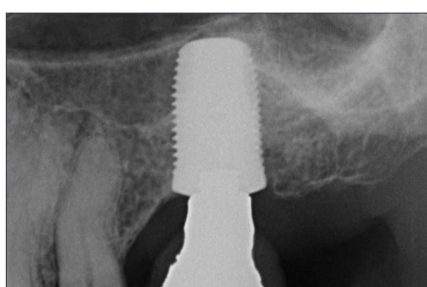


Figure 15

Placement of a Neoss ProActive Ø6.5x11 mm implant. A wide diameter implant with a collar that is conical with threads extending up on the collar, forming a threaded wedge that is engaging even when the available bone height is very limited. Its rounded apex minimizes sharp edges that can tear the sinus membrane during insertion and healing (Figure 9).

Implant insertion (Figure 10) with good primary implant stability (ISQ 80/75) and compaction of graft material (Figure 11) was achieved.

The lateral window was covered with a resorbable collagen membrane (CopiOs, Zimmer Biomet) (Figure 12).

CBCT showing bone situation after implant placement (Figure 13).

After 4 months of healing, ISQ had increased to 85/85.

Clinical situation 2 years post-loading is shown in Figure 14.

Stable bone situation is shown radiographically 64 months after loading (Figure 15).

This case shows that by using the Neoss ProActive 6.5 mm diameter implant, tooth extraction, sinus lift, and implant placement can successfully be done all in one visit and achieve a predictable long-term clinical outcome.