

Oroantral fistula: a complication of late implant failure

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Background: Oroantral fistula (OAF) can occur most frequently after maxillary posterior tooth extraction but rarely long after implant placement.

Aim/Hypothesis: This report describes an uncommon OAF occurring 10 years after implant placement simultaneously with sinus grafting.

Material and methods: In April 2003, a woman presented for implant placement in sites 23–26 (residual bone height: 12–2 mm). A sinus lift with Bio-Oss® (Geistlich AG) was performed with the simultaneous placement of three implants (≤10 mm; Straumann AG; sites 23–25). In July, implant 25 was removed because of mobility. In November, two implants were placed in sites 25 and 26. Four months later, the implants were functionally loaded with a screw-retained fixed partial denture (FPD). In 2013, radiography showed crestal bone loss around implant 25. A flap confirmed the bone loss up to its apex and CBCT showed an opaque left sinus. The FPD was unscrewed revealing the mobility of implant which was removed and an OAF. The FPD was re-screwed and antibiotics were administered. In 2014, the sinusitis was still observed on CBCT. The FPD was unscrewed; the sinus was rinsed through the fistula and FPD was re-screwed. The procedure was repeated until the sinus showed no more signs of infection. The AOF was closed with a buccal advanced flap. In 2015, the FPD was unscrewed. Clinical control showed that the OAF remains successfully closed. CBCT confirmed the total healing of the sinus.

Results: The bone loss was first diagnosed as periimplantitis but not as loss of osseointegration. CBCT did not show sinus floor disruption but unilateral sinusitis. Implants were retained by the FPD and seemed to be functional. Unscrewing of the FPD was needed to identify implant mobility. At the end of the treatment, the patient regained the same FPD alongside a healthy condition.

Conclusions and clinical implications: Non-osseointegrated maxillary implants may cause OAF. This case reflects the importance of a routine implant control. Unilateral radiopaque sinus images may indicate implant failure and related OAF.