IPG-Dentist Edu technique: Minimal invasive bone augmentation without sinus floor elevation with intentional perforation of the sinus membrane using the autologous biomaterial CGF-CD34+matrix

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**Aim:** The rapid placement of implants in the sinus cavity by means of intentional perforation of the sinus membrane following a certain clinical protocol, without performing Sinus Floor Elevation (SFE).

**Materials and Methods:** 32 patients with age range between 43-67 (19-female, 13-male), in which upper jaw rehabilitation needed to be performed with non-removable prosthesis. The option of placing a total of 47 implants (28 left and 19 right on sinuses sides) was offered to the patients. All of them have been informed regarding the clinical procedure and a written consent was signed. This study has undergone an ethics review from Patras University. According to the proposed clinical protocol, all implants were placed in a flapless approach and entered each sinus cavities with intentional perforation of the Schneiderian membrane. The combined employment of concentrated growth factors (CGF & stem-cells-CD34+) and bone grafting within the osteotomy site and by means of implant immersion, was made in such a manner that the sinus can adapt to the new conditions forming new bone around the implants without the need to perform an SFA procedure.

**Results:** CBCT scans showed new bone formation around the implants by means of textural image analysis. None of all patients’ sinuses presented any signs of infection. Implant Stability Quotient values ranged between 61 and 69 proving high implant strength. Histologic analysis showed alternate layers between non-Mineralized Tissue and Vital Bone.

**Conclusions:** IPG-DentistEdu technique promising results demonstrate that it can be considered as a reliable alternative to the SFE (Sinus Floor Elevation) procedure.