Clinical evaluation of xenograft in the 57 maxillary sinus augmentation procedures

Târcio Hiroshi Ishimine Skiba DDS. MS; Cláudio Ferreira Nóia DDS. MS. PhD; Bruno Sá DDS. MS; Jamil Awad Shibli DDS. MS. PhD; Tallyta Motta Prado DDS. SOEP/FACSETE, Brazil.

Background and Aim

**Background:** Subjects with maxillary posterior atrophy present maxillary sinus pneumatization that could avoid or difficult dental implant placement. Several biomaterials have been used to reduce morbidity and autogenous bone availability.

**Aim:** To evaluate the efficacy of xenograft material from bovine origin (Lumina-Bone Porous®; Critéria Ind. e Com. de Produtos Medicinais e Odontológicos Ltda., São Carlos, Brazil) in maxillary sinus augmentation procedures.

Methods and Materials

A total 35 subjects with of 57 maxillary sinus cavities with alveolar bone height lower than 3mm. The lateral window approach was used to access the maxillary sinus and perform the sinus lifting procedure using solely xenograft material. Six months after augmentation surgery, the areas received dental implants and thereafter the final implant-supported restoration.

Results

Radiographic evaluation showed that 53 out of 57 (92.9%) sinus cavities presented sufficient height gain (>9mm) to allow dental implant placement. A total of 103 implants were placed and 3 implants presented early lack of osseointegration and 2 implants presented late loss of 2 after 27-month follow-up (95.14%).

Conclusion

Within the limits of this clinical study, the biomaterial evaluated proved to be reliable and predictable for implant placement as well as well successfully restored, at least after 27 months period.

References

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