A Palatal Approach for a Sinus Augmentation Procedure

Hector L. Sarmiento, DMD, MSc
Badr Othman, BDS, MSc, DABOI/ID, FRDC(C)
Michael R. Norton, BDS, FDS, RCS(Ed)
Joseph P. Fiorellini, DMD, DMSc

The purpose of this article is to demonstrate an alternative method for sinus augmentation through a palatal approach when complications do not allow the use of traditional approaches. A 50-year-old male patient presented with multiple previous sinus augmentation attempts. A cone beam computed tomography scan revealed bone graft material had consolidated on the buccal aspect of the lateral sinus wall only, preventing implant placement while not allowing access via a conventional lateral window technique to improve the graft bulk. A palatal approach was adopted as an alternative method of sinus entry and is presented in this case report. The authors suggest that a palatal approach technique is a safe and effective method to complete a sinus augmentation where a buccal approach is impractical. Int J Periodontics Restorative Dent 2016;36:111–115. doi: 10.11607/prd.2545

Maxillary sinus augmentation is often required when restoring patients with single or multiple missing teeth in the posterior maxilla with dental implants. During postextraction healing, alveolar bone loss and sinus pneumatization often leaves insufficient vertical bone height to place an implant.1,2

The two techniques widely used for maxillary sinus augmentation are the lateral window technique and the internal osteotome technique.3–5 The residual post extraction vertical bone height determines which technique will be used. The internal osteotome technique is typically recommended when at least 5 to 6 mm of alveolar bone is present to stabilize the implant. This technique was developed by Summers in 1994 and is estimated to gain 4 to 8 mm of membrane elevation.4,6 A survival rate of 96% or higher has been shown when pretreatment bone height is 5 mm or more and dropped to 85.7% when pretreatment bone height was 4 mm or less.7 The most important factor influencing implant survival was the pre-existing bone height between the sinus floor and crest. Furthermore, a lateral window approach for sinus lift is performed when there is not enough vertical bone height to place an implant with the internal osteotome technique as a result of a severely resorbed ridge.