

Efficacy of Equine Demineralized Bone Matrix in treating oral cyst following enucleation: A histologic and clinical study in humans

Alyaa Ragaie, Lobna Abdelaziz , Neilly Hamouda

Abstract

Objectives: The aim of this study is to report the effect of equine demineralized bone matrix (DBM) on the healing of oral cystic cavities following enucleation using clinical parameters.

Study design: Twelve patients aged from 20 to 40 years and suffering from cystic lesion in the jaw were included in this study. Cystic cavity augmentation with DBM was performed on 6 patients. After an average of 6 months healing period, a core bone was obtained and stained for histologic analysis simultaneously with implant placement.

Results: Uneventful healing and spontaneous filling of the residual cavities was obtained in all cases. All implants showed favorable Osseointegration, and final restorations were completed without failure in all cases. Histologically, new bone formation was active around grafted bone, and grafted bone was well integrated to the newly formed bone matrix. In histomorphometric analysis, vital bone volume was 25.2 ± 3.3%.

Conclusion: The equine DBM is clinically useful for the increase of bone volume in cystic cavities after enucleation, because of its favorable effect of new bone formation and it is considered to be a safe, simple, reliable, acceptable, and easy handling bone grafting material.

Keywords: Demineralized bone matrix; Bone graft; Oral cyst

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