The use of autologous fibrin glue for closing sinus membrane perforations during sinus lifts.

Authors: Choi B.-H., Zhu S.-J., Jung J.-H., Lee S.-H., Huh J.-Y.

Publication Date: 2006

Abstract:

Sinus lift procedures depend greatly on fragile structures and anatomical variations. These procedures may cause sinus membrane perforations, which can lead to graft infection and early failure. The aim of this study was to assess the efficacy of autologous fibrin glue in the management of large perforations of the maxillary sinus membrane occurring during sinus lifts. After elevating the sinus membrane in the bilateral maxillary sinuses of 6 adult female mongrel dogs, a laceration (about 2.0 cm in length) was made in the membrane and either repaired with autologous fibrin glue or covered with a bioabsorbable collagen membrane as a control. Wounded areas were biopsied 2 weeks after the operation. Wounds repaired with autologous fibrin glue showed newly formed continuous epithelium across the previous perforation site. However, extensive fibrosis, inflammatory infiltration, and absent epithelium were observed in wounds treated with the collagen membrane control. Our results support the clinical use of autologous fibrin glue for repairing sinus membrane perforations. © 2006 Mosby, Inc. All rights reserved.