Application of polyglycolic acid sheets and fibrin glue spray to bone surfaces during oral surgery: A case series.

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Abstract:

Purpose: Previous studies have described the use of a combination of polyglycolic acid (PGA) sheets (a resorbable biomaterial) and fibrin glue spray to treat open soft tissue wounds during oral surgery which have produced good results. However, there have not been any detailed investigations of the use of these materials to treat exposed hard tissue wounds. This study investigated the combination of PGA sheets and fibrin glue spray to treat exposed bone surfaces during oral surgery. Materials and Methods: PGA sheets and fibrin glue spray were applied to exposed bone surfaces after lesion resection in 8 patients (10 sites) who had been diagnosed with malignant tumors. The sheets were cut into pieces (width, 5 to 10 mm) and applied to the exposed bone surface. Results: PGA adhesion was confirmed for the final time on postoperative days 28 to 56 (mean, 35.8 days), and there were no cases in which the PGA sheets fell off the wound prematurely. Epithelializa-tion of the wound surface occurred gradually and was complete by postoperative weeks 4 to 5, regardless of the size of the wound. Conclusion: This method was considered very effective at preventing postoperative bleeding, alleviating postoperative pain, and promoting epithelialization during the reconstruction of bone surfaces after tumor resection in the oral cavity.