

Extended application of polyglycolic acid sheet combined with sprayed fibrin glue to advanced oral cancers.

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Abstract:

Introduction: Polyglycolic acid (PGA) sheet (NEOVEIL, GUNZE Ltd.) is an absorbable material which can be used in combination with fibrin glue to reinforce a variety of tissues. We had introduced this material to cover mucosal defects after resection of early stage oral cancers in 2007 with promising results in aspects of hemostasis and pain relief. Here we report our experience of the extended application of PGA felt to selected cases of locally advanced oral cancer. Methods: Retrospective chart review was performed on the 24 patients with T3/4 oral cancer who had taken curative resection at Kyoto Medical Center during the period from 2009 through 2010. Data was collected on patient characteristics (age and ASA-PS), tumor size and site, operative method and duration, intraoperative blood loss, postoperative complications, and functional results. Results: PGA sheet was utilized in 11 patients (mean age 70.3 year-old). The ASA-PS score was 3 in 3 patients and 2 or less in the others. The primary tumor (mean size 48 mm) was located in gingiva in 4 patients, buccal mucosa in 3, tongue in 2, tonsil in 1 and oral floor in 1. In all the patients, surgical resection was completed with negative margins. Among 10 patients who underwent neck dissection, communication between oral cavity and cervical field was present in 4. The mucosal defects were covered with pieces of PGA sheet, which were fixed by spraying fibrin glue. The mean operative duration was 219 min and the mean intraoperative blood loss was 242 g. One postoperative oro-cutaneous fistula was observed, which was treated conservatively. The other complications included 2 mild to moderate trismus due to scar contracture, 2 surgical site infections, 1 partial necrosis of irradiated skin and 1 minor bleeding. All the patients regained solid food intake within a

month with the exception of one. Discussion: PGA sheet combined with fibrin glue could be safely used for selected cases of locally advanced oral cancers. Waterproof sealing of complex defects was achieved by the simple and quick procedure, which contributed for the reduction of operative invasiveness without sacrificing postoperative functions.