

Clinical evaluations of complete autologous fibrin glue, produced by the CryoSeal FS system, and polyglycolic acid sheets as wound coverings after oral surgery.

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Abstract:

The CryoSeal FS System has been recently introduced as an automated device for the production of complete fibrin glue from autologous plasma, rather than from pool allogenic or cattle blood, to prevent viral infection and allergic reaction. We evaluated the effectiveness of complete autologous fibrin glue and polyglycolic acid (PGA) sheet wound coverings in mucosa defect oral surgery. Postoperative pain, scar contracture, ingestion, tongue dyskinesia, and postoperative bleeding were evaluated in 12 patients who underwent oral (including the tongue) mucosa excision, and received a PGA sheet and an autologous fibrin glue covering. They were compared with 12 patients who received a PGA sheet and commercial allogenic fibrin glue. All cases in the complete autologous fibrin glue group demonstrated good wound healing without complications such as local infection or incomplete cure. All evaluated clinical measures in this group were similar or superior to the commercial allogenic fibrin glue group. Coagulation and adhesion quality achieved with this method was comparable to that with a PGA sheet and commercial fibrin glue. Covering oral surgery wounds with complete autologous fibrin glue produced by an automated device was convenient, safe, and reduced the risk of viral infection and allergic reaction associated with conventional techniques.

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