

Fibrin sealant provides superior hemostasis for sternotomy compared with bone wax.

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Publication Date: 2012

Abstract:

Purpose: The purpose of this study was to evaluate the hemostatic efficacy and feasibility of direct injection of fibrin sealant into the sternal marrow cavity in senior patients undergoing on-pump coronary artery bypass grafting (CABG). **Description:** A total of 82 senior patients undergoing on-pump CABG were randomized to the bone wax group (n = 40) or the fibrin sealant group (n = 42) for the period July 2010 to January 2011. **Evaluation:** The fibrin sealant-treated group had less chest drainage in the first 24 hours (186.67 +/- 49.53 versus 333.75 +/- 60.49 mL), less total chest drainage (326.19 +/- 67.24 versus 516 +/- 88.46 mL), less packed red blood cell (PRBC) administration (3.6 +/- 1.25 versus 7.4 +/- 2.13 U), less fresh frozen plasma (FFP) administration (5.52 +/- 1.64 versus 8.95 +/- 1.77 U), shorter intubation time (40.36 +/- 8.62 versus 46.25 +/- 10.46 hours), and shorter hospital stay (10.45 +/- 1.17 versus 11.03 +/- 1.37 days) compared with the bone wax group. No significant difference in the incidence of postoperative complications was found. **Conclusions:** Direct injection of fibrin sealant into the sternal marrow cavity significantly reduces the amount of postoperative blood loss and offers an attractive new treatment alternative for senior patients undergoing on-pump CABG. © 2012 The Society of Thoracic Surgeons.