Bleeding from the sternal marrow can be stopped using vivostat patient- derived fibrin sealant.

Authors: Kjaergard H.K., Trumbull H.R.

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Abstract:

Background. Median sternotomy is the most important method of access to the heart. Bleeding from the sternal marrow may become significant, especially in elderly patients. Vivostat (ConvaTec, a Bristol-Myers Squibb Company, Skillman, NJ) patient-derived fibrin sealant is biocompatible and easily applied to the sternal marrow using the Vivostat Spraypen applicator. Methods. Thirty patients undergoing elective cardiac operation were randomized to receive Vivostat fibrin sealant applied to either the right or left side of the sternum immediately after median sternotomy, with the untreated side serving as control. Results. The average time to hemostasis was 43 seconds after treatment with Vivostat and 180 seconds on the control sides ($p < 0.001$). At the end of the operation, complete hemostasis was observed on 24 of 30 sides treated with Vivostat compared with on 4 of 30 of the control sides ($p < 0.001$). The average volume of sealant used to cover one side of the sternum was 0.9 mL. Conclusions. Vivostat patient-derived fibrin sealant is a biocompatible alternative to bone wax, with the results of this study showing that it provides effective control of bleeding after median sternotomy. (C) 2000 by The Society of Thoracic Surgeons.