Bleeding from the sternal marrow can be stopped using vivostat

patient- derived fibrin sealant.

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

Publication Date: 2000

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.