Spraying of aerosolized fibrin glue in the treatment of nonsuturable hemorrhage.

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Abstract:

In the present report, the authors describe the use of aerosolized fibrin glue (FG) to achieve hemostasis in patients with nonsuturable hemorrhage. The multicomponent FG was sprayed on bleeding tissues with a dual chamber spray head that allowed simultaneous application and mixing of fibrinogen and thrombin on the tissue surface. Sterile propellant gas was passed through tubing to the spray head and independently controlled, allowing for drying of the tissue surface immediately before FG application. This technique was found to be effective in achieving hemostasis of parenchymal organs, retroperitoneal surfaces, and skin graft donor sites. Additional potential applications of this technique include the control of hemorrhage from mediastinal and pleural surfaces.