Techniques of splenic preservation using fibrin glue.

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Publication Date: 1990

Abstract:

Fibrin glue (FG) was used to achieve hemostasis of 16 splenic injuries in 14 patients. The etiologies

of injury included five gunshot wounds, two stab wounds, four iatrogenic injuries, and five patients

with blunt splenic trauma. The intraoperative blood loss averaged 1.8 +/- 2.4 (SD) liters and patients

were transfused 3 +/- 2 units of blood perioperatively. The amount of FG required to achieve splenic

hemostasis averaged 11 +/- 8 ml and varied directly with the grade of injury. One patient with a

splenic hilar vascular injury (Grade V) underwent splenectomy following failure to achieve complete

hemostasis despite the use of 25 ml of FG. All other splenic injuries were successfully managed

using less than 25 ml of FG. Postoperative computerized tomographic (CT) scanning, performed in

ten patients, was negative for rebleeding or abscess formation. The overall splenic salvage rate was

86%. FG was effective in achieving hemostasis of both superficial and deep splenic injuries. Its use

as an adjunct in trauma surgery should result in increased splenic salvage rates compared with that

obtained using conventional surgical techniques.