Treatment of splenic trauma with fibrin-glue, infrared contact coagulation and laser coagulation. An experimental study. [German]

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Abstract:

Experimental studies of hemostasis of the traumatised spleen are reported. After experimental trauma, rapid intraoperative hemostasis and subsequent preservation of the spleen was achieved by the use of a homologous fibrin glue system. A collagen fleece or an autologous fascial flap was used as a carrier for the adhesive mixture. Moreover, hemostasis was also attempted with an infrared contact coagulation device and a Neodymium-YAG-Laser. After fibrin gluing all the substances used are quickly absorbed by the organism. This is one of the major advantages of the fibrin adhesive method. When the bleeding surface was covered with a collagen fleece or a fascial flap, hemostasis was attained quickly. The collagen fleece has an absorptive effect which improves the hemostatic quality. Hemostasis with infrared coagulation is based on infrared light and on mechanical tissue compression. Possible pools of blood can be managed by compressing the contact surface. With this method, too, hemostasis can quickly be achieved. It was impossible to attain equally positive results with the contact-free laser device. Hemostasis is caused by a burn necrosis with the coagulation methods. The tissue healing process lasts until the necrotic tissue has been absorbed.