

Experimental measure of the tensile strength of biological sealant-collagen association after hepatectomy in dogs.

Authors: Scotte M, Dujardin F, Amelot A, Azema P, Leblanc I, Bouvier P, Michot F, Teniere P

Publication Date: 1996

Abstract:

Fibrin sealants are commonly used in liver surgery. The aim of this study was to test the adhesive properties of a biological sealant-collagen bonding, using an experimental model. After hepatectomy in dogs, we measured the rupture stress point of a fibrin clot on the liver cross-section. The tensile strength was 0.28 N, 5 times higher than the force of arterial pressure in a 2-mm-diameter vessel. These results indicate that the adhesion of fibrin sealants is effective to prevent hemorrhage from the liver cross-section after hepatectomy.