Measuring the rupture stress point of biological sealant-collagen bonding: validation of a technique used after hepatectomy.

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Abstract:

The aim of this experimental study was to measure the rupture stress point of a fibrin clot situated on a liver, in realistic surgical conditions. The experimental method was carried out with a machined wooden cylinder bonded on the liver, connected with a wire to a setup and pulled at a constant speed, and a sensor was placed on the wire measuring the applied strength. This method, realized in the dog, made it possible to validate a precise and reproducible method designed for testing the adhesive characteristics of biological sealant-collagen bonding on the liver.