

# **Properties of a new fibrin glue stable in liquid state.**

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## **Abstract:**

A pasteurized preparation of fibrin glue composed of two separate stable, liquid components: highly purified human thrombin and fibrinogen concentrate is described. The components are mixed extemporaneously during application. Thrombin was prepared using a prothrombin complex concentrate as starting material which was activated by calcification and then heated in solution during 10 hours at 60°C in the presence of stabilizers. The isolation of thrombin was carried out using a column of benzamidine-Sepharose 6B. The eluate contained thrombin with a high degree of purity (more than 95% assessed by SDS-PAGE) with a specific activity > 2,500 IU/mg protein. The purified liquid thrombin preparation remained stable for at least 6 months. The fibrinogen concentrate was prepared from cryoprecipitate after removal of factor VIII and then virally inactivated by pasteurization in the presence of glucose and sorbitol. After purification the concentrate containing a high level of fibrinogen was formulated with urea 0.5 M or arginine 5% before conditioning. Both components of the fibrin glue kept its biological properties for more than 6 months at +4°C.