Autologous fibrin glue for sealing vascular prostheses of high porosity.

Authors: Kjaergard H.K., Weis-Fogh U.S.

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Abstract:

Thirty high-porosity double-Velour vascular prostheses were sealed with fibrin glue, the fibrinogen in the glue being prepared from citrated plasma by ethanol precipitation. After such preparation the prostheses were blood-tight at a pressure > 300 mmHg. Using a fibrin concentration of 13 mg/ml (obtained by dilution of the fibrinogen solution) the prostheses were blood-tight at a minimum pressure of 150 mmHg, which is suitable for clinical use. Sufficient fibrin glue can be prepared from 44-88 ml of the patient's blood to seal most types of high-porosity vascular prosthesis used clinically. The fibrin-sealed grafts have good handling characteristics because they are soft, pliable and non-sticky. The use of autologous fibrin glue has obvious safety advantages by preventing both transmission of viral diseases and immunological reactions.