

Fibrin sealant: past, present, and future: a brief review. [Review] [21 refs]

Authors: Spotnitz WD

Publication Date: 2010

Abstract:

BACKGROUND: Fibrin sealant is a two-component topical hemostat, sealant, and tissue adhesive consisting of fibrinogen and thrombin that has been used in the United States as a blood bank- or laboratory-derived product since the 1980s and has been commercially available since 1998.

METHODS/RESULTS: Initially, surgeons employed hospital-based materials because of the lack of availability of a commercially produced agent. At present, there are five U.S. Food and Drug Administration (FDA)-approved forms including products derived from pooled or autologous human plasma as well as bovine plasma. On-label indications include hemostasis, colonic sealing, and skin graft attachment. Recent clinical and experimental uses include tissue or mesh attachment, fistula closure, lymphatic sealing, adhesion prevention, drug delivery, and tissue engineering.

CONCLUSIONS: The modern literature on fibrin sealant now exceeds 3000 articles and continues to expand. This brief review presents the history of this material, its present clinical use, and its future applications. [References: 21]