Fibrin glue in tympanoplasty.

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Abstract:

For centuries it has been the dream of many surgeons to repair human tissue by using glue. Different techniques and types of adhesives have been proposed; unfortunately, most have had disappointing results. The original use of blood plasma and fibrinogen solutions - which were clotted by adding thrombin - to fix grafts in humans, as reported by Tidrick and Warner¹ and by Cronkite and associates, had a relatively high rate of failure owing to poor adhesive strength and durability of the sealings. Matras and colleagues³ successfully used a highly concentrated fibrinogen solution in combination with factor XIII, thrombin, and calcium chloride to seal severed nerves in animal experiments. A few years later, Matras and Kuderna⁴ reported on the application of this new method in humans. The recent availability of such nontoxic, absorbable biologic glue led to the development of a 2-component fibrin sealant.