Fibrin glue for closing conjunctival wounds in ophthalmic surgery. [German]

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Abstract:

Background. Tissue adhesives offer the attractive prospect of sutureless surgery and provide a mechanism for repairing potentially difficult surgical wounds. We examined the ability of fibrin glue - instead of sutures - to close conjunctival wounds at the end of different ophthalmic surgeries. Methods and patients. Between 2002 and 2003 the fibrin glue Beriplast was used in our department to close the conjunctival wound in 100 eye muscle surgeries, 10 scleral buckling procedures in retinal detachment, and 20 pars plana vitrectomies. Results. No patient showed postoperative adverse or allergic reactions, bacterial infections, inflammation, or delayed healing. The healing process of the conjunctiva takes a similar time course as in suture closure, but without disturbing suture ends and knots. In children with extensive Tenon's fascia, adaptation of the conjunctiva is safer using sutures. The necessary time using fibrin glue is reduced to one-fourth of the usual 4-8 min necessary for suturing the conjunctiva. The costs for fibrin glue are the same as for Vicryl 9/0, i.e., approximately 18-20 Euros per patient. Conclusions. Fibrin glue for closing conjunctival wounds results in good adaptation, is time saving, effective, and not more expensive than a suture with a high-end needle. Especially the thin atrophic conjunctiva in adults will tear using sutures in contrast to the very fast and effective adaptation with fibrin glue. Application of fibrin glue is limited in children with extensive Tenon's fascia: in these patients a suture is superior for good adaptation of the conjunctiva.