Tissue adhesives in corneal cataract incisions.

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Abstract:

PURPOSE OF REVIEW: The purpose of this review is to provide an updated overview of the peer-reviewed literature on the use of a variety of tissue adhesives used to seal corneal incisions in cataract surgery. We will review recent publications on the complications, safety profile, and efficacy of currently available and investigational tissue adhesives used for corneal incisions. We will also briefly review the relationship between clear corneal incisions and postoperative endophthalmitis. RECENT FINDINGS: Tissue adhesives have recently been investigated as alternate methods for corneal wound closure. Cyanoacrylate and fibrin glues are used widely because of their safety and effectiveness in sealing corneal incisions. However, both of these adhesives have certain limitations. For instance, cyanoacrylate adhesives have been shown to cause foreign-body sensation, local inflammatory reaction, and conjunctival hyperemia. Fibrin-based adhesives carry the disadvantages of prolonged preparation time, increased cost, and the theoretical risk of viral transmission. SUMMARY: Whereas currently available adhesives offer an alternative to sutures, other novel biomaterials are being evaluated for the sealing of corneal and cataract incisions. Hopefully, these studies will result in an optimal material tailored for ophthalmic use to facilitate wound closure and healing with an improved side-effect and biocompatibility profile.