The use of a fibrin adhesive for a cartilage graft: Basic and clinical studies.

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Abstract:

The efficacy of fibrin glue for a cartilage graft has been studied both experimentally and clinically. Initially the adhesive effect of fibrin glue was tested on the ear cartilage of the rabbit and the costal cartilage of the human, and it was found that the adhesive effect on cut surface of the cartilage was rather weak. On perichondrium, however, a good adhesive effect was obtained. Experimental studies involving ear cartilage grafts were performed on 50 rabbits. The subsequent histological changes seen in the cartilage, which had been grafted subcutaneously using fibrin glue, was compared with a control group for the following items: absorption, calcification, ossification, and the cellular proliferation of the grafted cartilage. There was no evidence of an adverse effect caused by this glue on the grafted cartilage. Further, no significant histological difference between either group was observed statistically. In 14 clinical cases of a cartilage graft, fibrin glue was used for the purpose of hemostasis and for cartilage fixation to the recipient site. In every instance no, post-operative hemorrhage, hematoma, or infection was seen. Further, no immunological side effects were observed. Thus, in cases requiring a cartilage graft, fibrin glue would seem to be useful for hemostasis and for cartilage fixation to the recipient bed, even though its adhesive effect was not as strong as had been anticipated.