

Arthroscopic meniscal repair using fibrin glue. Part I: Experimental study.

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Abstract:

An experimental study of rabbit menisci was carried out to evaluate the healing-promoting properties of fibrin glue and fibrin glue-containing marrow cells. A full-thickness defect, 1.5 mm in diameter, was made within the avascular portion of the meniscus and left empty in 20 menisci (C group), filled with fibrin glue in 20 menisci (F group), and filled with fibrin glue-containing marrow cells in 20 menisci (M group). Measurements of the remaining defects and histological examinations were performed 1, 3, 6, and 12 weeks after each procedure. Overall, the remaining defects in the F group and, particularly, in the M group were significantly smaller than those in the C group at the various time points. Furthermore, the results of histological study showed earlier mature healing of the defects in the M group than of those in the F group. Our results suggest that fibrin glue, especially in a preparation containing marrow cells, may enhance meniscal healing.