Collagen repair not improved by fibrin adhesive. Cruciate ligament

ruptures studied in dogs.

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Abstract:

The anterior cruciate ligament in 30 dogs was transected and repaired by simple suture. In every

other dog, fibrin adhesive (Tisseel Kit, Immuno AG, Vienna, Austria) was applied to the transection

area before suturing. The proportion of organized versus unorganized and inflammatory tissue

formation was assessed histologically. At 3 weeks, the amount of normal organized collagenous

tissue was reduced to 20 percent both without and with fibrin adhesive. After 6 weeks, a substantial

increase of organized collagenous tissue was observed after suture only, which at 12 weeks

reached about 70 percent of the total area. In contrast, repair with fibrin adhesive had at 12 weeks

only 30 percent of normal collagenous tissue.