Arthroscopic meniscal repair with fibrin clot of complete radial tears

of the lateral meniscus in the avascular zone.

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Abstract:

Peripheral lateral meniscal tears are amenable to arthroscopic meniscal repair. However, the

posterolateral aspect of the lateral meniscus adjacent to the popliteus tendon is devoid of

penetrating peripheral vessels and therefore difficult to heal. A complete radial split at this site is

usually treated with total meniscectomy. We report five cases of a tear of the posterolateral aspect

of the lateral meniscus anterior to the popliteus fossa. All patients had a radial split that extended to

the popliteus tendon. In all cases, the repair was enhanced with a fibrin clot. Second-look

arthroscopy showed that healing of the periphery occurred in all of the cases. All patients returned to

their initial level of sports activity. Three of five patients were available for follow-up at an average of

71 months, and magnetic resonance imaging was performed at that time to assess the previously

repaired meniscus. All menisci were fully healed and showed no further signs of degeneration. The

ability of an exogenous fibrin clot to stimulate and support a reparative response in the avascular

portion of the meniscus may represent a potential method of repair. Awareness of the relatively low

healing potential of this zone and enhancement of healing opportunities should improve outcome.