

Outcomes and return to sports following the ankle lateral ligament reconstruction in elite athletes: a systematic review of the literature

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Introduction

The literature on the early reconstruction of severe acute lateral ligament injuries in professional athletes suggests earlier rehabilitation and reduced incidence of recurrent instability. Predicted time to return to training and sports is important to both the athlete and the club and has not previously been reported.

Aims & Objectives:

Primary aim is to establish the best treatment options available for lateral ligament injury in elite athletes and assess the average time to return to physical training and return to play (RTP). Secondary aims are to find out the rate of return to the pre-injury level of competitive sports and the reasons for delayed recovery.

Materials and Methods:

We performed a systematic review according to PRISMA guidelines to evaluate the demographics, clinical profile, management, and treatment outcomes. Electronic searches of the MEDLINE, EMBASE, and Cochrane databases were performed. Studies conducted between 2000 and 2020 with articles reporting the ankle lateral ligament reconstruction in elite athletes were included.

Results

After initial screening, 982 articles were identified, of which, 10 articles evaluating 343 athletes met the criteria and were included for final review. The combined mean age was 23 years with an average follow up of 58.4 months. After surgery 308 (89%) returned to their pre-injury level of sports, 7 (2%) patients returned to a lower-level sport while the remaining 28 (9%) never returned to play.

Discussion

There is an extensive amount of literature describing techniques and outcomes for lateral ankle ligament repair and reconstruction among the general population. Elite athletes are a discrete group who are eager to return to sports as quickly as possible due to higher than the usual expectations. They are more susceptible to re-injury after returning to sports and are likely to test the quality of the surgical repair. Recovery progression after the injury or surgery in an elite athlete may be different from that of a recreational sports person. One might assume that, because of the very high levels of expected performance, the elite athlete may take longer to return to a pre-injury level than the average person. However, better access to expert aftercare by dedicated physical therapists and different levels of motivation often means that high-performance athletes are observed to rehabilitate more quickly.

Conclusions

Our results provide a guide to predict the expected time to return to training (RTP) after surgical repair of lateral ligament injuries along with associated injuries leading to delayed rehabilitation. Lateral ligament reconstruction is a safe and effective treatment for severe ruptures providing a stable ankle with a mean time of 16 weeks to return to sports. The available studies vary considerably in their metrics used for measuring patient-reported outcomes.

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