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Is There a Differnce in Return to Sporting Level Between Professional and Non-Professional Athletes Following Arthroscopic Rotator Cuff Repair?

Introduction: Rotator cuff injuries are a common cause of shoulder pathology, with an incidence increasing with age. These injuries are severely debilitating and can be difficult to restore prior functional states. Here, we assess the relationship between level of sporting professionalism and postoperative outcomes, specifically with regard to return to sport (RTS) at the same level of play, and RTS timings.
Methods: A systematic review was performed using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) guidelines on PubMed, EMBASE and Cochrane databases. The search criteria "rotator cuff repair and return to sports" OR "rotator cuff repair and return to play" yielded 286 results.
Results: Only 9 studies met our inclusion criteria and were eligible to be included in the study, of which, 3 and 6 described professional and non-professional athletes (n=340 total), respectively. Of the professional cohort (n=57), the RTS rate ranged from 50% to 91%. The mean time to RTS ranged from 4.8 to 7 months with the shortest time in the all-male rugby union group, and the longest time in the all-female tennis playing group. Of the non-professional cohort (n=283), the RTS rate ranged from 71% to 100% with a mean time to RTS ranging from 5.6 to 6.3 months.
Discussion: There appeared to be a stark difference in RTS level between professional and non-professional athletes, which is likely due to the high level of function required to maintain peak performance. Interestingly, there was no large difference in time to RTS between cohorts. Within the professional group, the times to RTS suggest a correlation between sex and time to RTS. This study highlights the importance of standardized functional scoring to aid direct comparisons. A larger study, with standardized functional scoring may be warranted to assess this area further and analyze the demographics and other variable effects on sporting outcomes.

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