

Simultaneous Bilateral Patella Tendon Rupture: A Systematic Review

Authors : André Rui Coelho Fernandes, Mariana Rufino, Divakar Hamal, Amr Sousa, Emma Fossett, Kamalpreet Cheema

Abstract : Aim: A single patella tendon rupture is relatively uncommon, but a simultaneous bilateral event is a rare occurrence and has been scarcely reviewed in the literature. This review was carried out to analyse the existing literature on this event, with the aim of proposing a standardised approach to the diagnosis and management of this injury. Methods: A systematic review was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Three independent reviewers conducted searches in PubMed, OvidSP for Medline and Embase, as well as Cochrane Library using the same search strategy. From a total of 183 studies, 45 were included, i.e. 90 patellas. Results: 46 patellas had a Type 1 Rupture equating to 51%, with Type 3 being the least common, with only 7 patellas sustaining this injury. The mean Insall-Salvio ratio for each knee was 1.62 (R) and 1.60 (L) Direct Primary Repair was the most common surgical technique compared to Tendon Reconstruction, with End to End and Transosseous techniques split almost equally. Brace immobilisation was preferred over cast, with a mean start to weight-bearing of 3.23 weeks post-op. Conclusions: Bilateral patellar tendon rupture is a rare injury that should be considered in patients with knee extensor mechanism disruption. The key limitation of this study was the low number of patients encompassed by the eligible literature. There is space for a higher level of evidence study, specifically regarding surgical treatment choice and methods, as well as post-operative management, which could potentially improve the outcomes in the management of this injury.

Keywords : trauma and orthopaedic surgery, bilateral patella, tendon rupture, trauma

Conference Title : ICSOM 2023 : International Conference on Sports Orthopaedics and Medicine

Conference Location : Lisbon, Portugal

Conference Dates : April 13-14, 2023