

# THE USE OF SERIAL PLATELET RICH PLASMA INJECTIONS WITH EARLY REHABILITATION TO EXPEDITE GRADE III MEDIAL COLLATERAL LIGAMENT INJURY IN A PROFESSIONAL ATHLETE: A CASE REPORT

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## ABSTRACT

**Background:** Medial collateral ligament (MCL) injuries are one of the most commonly treated knee pathologies in sports medicine. The MCL serves as the primary restraint to valgus force. The large majority of these injuries do not require surgical intervention.

**Case Subject Description:** A 30-year-old professional wrestling athlete presented to the clinic with acute complaints of right medial knee pain resulting from a traumatic valgus force. Physical exam revealed Grade 3 MCL injury. Magnetic resonance imaging confirmed clinical diagnosis of a Grade 3 proximal MCL tear. This athlete had sustained a prior grade 3 ACL injury with Grade 3 distal MCL injury which required surgery to reconstruct the ACL and repair the MCL 13 months prior, in November of 2015.

**Outcomes:** The subject was successfully treated with a series of three sequential Leukocyte Rich Platelet Rich Plasma (LR-PRP) Injections spaced evenly one week apart in addition to an early physical therapy regimen. The total treatment time was cut down from an expected 35-49 days to 31 days.

**Discussion:** When paired with the appropriate rehabilitation treatment progression, the use of LR-PRP injections in the treatment of an isolated MCL tear was beneficial for this subject.

**Conclusion:** The results of this case report indicate that the use of LR-PRP and early rehabilitation shows promise in treating an acute grade 3 MCL injury. Future research utilizing randomized controlled trials are needed.

**Level of Evidence:** Case Report, 4

**Key Words:** Knee, Leukocyte-Rich PRP, medial collateral ligament

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**Conflicts of Interest:** The authors of this case report do not have any conflicts of interest to disclose affecting the publication of the case report.

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