

MANAGEMENT OF ACUTE GRADE II LATERAL ANKLE SPRAINS WITH AN EMPHASIS ON LIGAMENT PROTECTION: A DESCRIPTIVE CASE SERIES

Bradley Wells, PT, DSc, SCS, FAAOMPT¹

Chris Allen, PT, DSc, OCS, FAAOMPT¹

Gail Deyle, PT, DSc, OCS, FAAOMPT¹

Theodore Croy, PT, PhD, OCS

ABSTRACT

Background and Purpose: Lateral ankle sprain the most common injury in physically active populations. Individuals who sustain an acute lateral ankle sprain may not receive timely formal rehabilitation and are at an increased risk to have subsequent sprains which can lead to chronic pain and instability. Attention to essential factors for ligament protection and healing while preserving ankle movement, may result in a more stable yet mobile ankle offering improved outcomes. The purpose of this case series was to describe the methods and observe the outcomes associated with a comprehensive strategy for managing acute first episode grade II lateral ankle sprains.

Study design: Prospective case series.

Case Descriptions and Interventions: Ten patients (mean age 26.7 years, range 16-51 years, mean 2.3 days from injury) with acute grade II lateral ankle sprain were treated with an approach to protect the injured ligament, prevent impairments to movement, restore strength and proprioception, and progress to full function. Patient outcomes were assessed at four, eight and 12 weeks. Follow-up interviews at six and 12 months assessed injury recurrence.

Outcomes: Patients were treated for an average of eight sessions over a mean of seven weeks. Rapid change in self-reported function, ankle ROM, and pain were observed in the first four weeks of care. Clinically meaningful improvements in function and ankle ROM were also noted at eight weeks and maintained at 12-week follow-ups. All patients returned to desired physical activity with only a single re-sprain event within one year after injury.

Conclusion: The results of this prospective case series suggest that a treatment approach designed to protect the injured ligament, maintain and restore normal ankle motion, and provide a tailored functional pathway to return to run and sport demonstrated resolution of symptoms and improvement in reported functional outcomes in a group of patients following grade II acute primary ankle sprain.

Level of Evidence: Level IV, Case Series

Key Words: Ankle sprain, joint mobilization, rehabilitation, movement system

¹ Army-Baylor University Doctoral Fellowship in Orthopedic Manual Physical Therapy, Brooke Army Medical Center, Fort Sam Houston, TX, USA

² Army-Baylor University Doctoral Program in Physical Therapy, Fort Sam Houston, TX, USA

The Institutional Review Board at Brooke Army Medical Center, Fort Sam Houston, TX reviewed the protocol for this study (reference number C.2015.118d). The authors certify that they have no affiliations with or financial involvement in any organization or entity with a direct financial interest in the subject matter or materials discussed in the article.

The opinions and assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the Departments of the Army or Defense.

CORRESPONDING AUTHOR

Bradley Wells

Rehabilitation Services, Naval Medical Center
Camp Lejeune

100 Brewster Blvd, Camp Lejeune, NC 28547

E-mail: bwells6@gmail.com;

Bradley.s.wells3.mil@mail.mil