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Cryotherapy Combined with Contrast Bath Therapy for Post-Match Recovery in a Hamstring Injury: A Case Study

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Abstract

Hamstring muscle injuries are the most common soft-tissue injuries in football, associated with high recurrence and time loss. This case study reports the use of combined local cryotherapy and contrast bath therapy as an adjunct to early rehabilitation in a competitive football athlete with acute hamstring strain. The intervention demonstrated reduced pain and improved early functional recovery, supporting its adjunctive role in post-match rehabilitation.

Keywords: Hamstring strain, Cryotherapy, Contrast bath therapy, Football, Sports physiotherapy, Post-match recovery

Background

Hamstring strain injury is prevalent among football players due to high-speed running, sudden acceleration and deceleration, and eccentric muscle loading. Cryotherapy and contrast bath therapy are commonly used to enhance early recovery and symptom management.

Uniqueness of the Case

This case highlights combined immediate cryotherapy and contrast bath therapy integrated with early rehabilitation for a competitive football athlete.

Case Presentation

A 24-year-old male professional football midfielder sustained an acute hamstring strain during high-speed sprinting. Clinical examination revealed localized tenderness, restricted straight leg raise, and pain-limited strength.

Procedure

Immediate cryotherapy was applied for 15 minutes followed by contrast bath therapy (warm 38–40°C for 3 minutes, cold 12–15°C for 1 minute, four cycles). Early rehabilitation with progressive loading was initiated.

Results

Pain reduced from 6/10 to 1/10 within seven days. Range of motion and functional performance improv-

ved, with return to full training at two weeks.

Conclusion

Combined cryotherapy and contrast bath therapy may support early recovery when used as an adjunct to structured rehabilitation.

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