



**Differential Diagnosis And Management Of A Quadriceps
Tendon Rupture by a physical therapist practicing
In An Emergency Department: A Case Study**

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Background & Purpose : Musculoskeletal injuries are commonly seen in emergency departments (EDs), yet many ED physicians do not feel adequately trained to manage musculoskeletal injuries. Physical therapists (PTs) are considered musculoskeletal experts and are highly skilled at managing musculoskeletal conditions. PTs are also well trained to identify conditions that require medical intervention outside the scope of PT practice. There are no published studies demonstrating the unique contribution of PT practice in the ED via description of individual patient management. This case report describes the medical management; PT examination, evaluation, and intervention; and long-term follow-up of a patient who presented to the ED with knee pain.

Case Description : A 75-year-old obese man presented to the ED with a primary complaint of knee pain after a fall down stairs. He was initially seen by an ED physician who ordered a radiograph which suggested an osteochondral loose body in the knee. The ED physician assigned an orthopedic tech to teach the patient crutch use (weight bearing as tolerated [WBAT]) and recommended follow up with the patient's primary care physician. Concern was raised by the tech due to the patient's size and fall risk. This led the physician to a request a consult by the ED PT. Findings from the PT exam led the PT to hypothesize that the patient had torn his quadriceps tendon. The PT notified the physician of his concerns, placed the patient in a knee immobilizer, and trained him to use a rolling walker. The patient was referred to an orthopedic surgeon who

confirmed the PT's hypothesis and surgically repaired the tendon one week later.

Outcomes : Based on the ED PT's diagnostic hypothesis of a quadriceps tendon rupture, he determined that the patient required external support to safely WB through the affect limb. The PT also considered the patient's size, age, fall history, and poor balance and chose a walker versus the crutches that had initially been issued. Had the patient been discharged with crutches and instructions to WBAT without external support, he may have experienced additional falls or injury. The PT's diagnostic hypothesis also led to referral to the proper medical specialist, allowing the patient to have surgery in a timely manner. Via follow-up correspondence, the patient reported very high satisfaction with the ED PT episode of care.

Discussion : Individuals with musculoskeletal injuries often present to EDs, yet many ED physicians do not feel adequately trained to manage such conditions. This case study describes the examination and differential diagnosis skills used by an ED PT to effectively manage a patient who was initially misdiagnosed with a minor injury.

Consultation with the ED PT was an essential component in identifying this patient's needs and appropriate follow-up treatment. This case highlights that PTs can play a valuable role in the interprofessional team within the ED.

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