

Intramuscular Hamstring Injuries: Navigating the Path to Popliteal Cyst – A Case Report

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INTRODUCTION:

Hamstring injuries are common in athletes and individuals engaging in physical activities. They typically involve the myotendinous junction or musculotendinous junction and are characterized by acute pain and dysfunction. However, intramuscular variant hamstring injury, though less frequent, can lead to distinct clinical presentations and complications. One such complication is the development of a popliteal cyst, which arises from the posterior aspect of the knee joint capsule. Here, we present a case of intramuscular hamstring injuries leading to the formation of a popliteal cyst, discussing its challenge in diagnosis and sequelae of injury.

REPORT:

A 23-year-old male swimming coach presented to the emergency department after a motorbike skid, experiencing immediate severe pain in his right thigh along with significant bruising and swelling. Physical examination revealed tenderness, bruising over the posterior aspect of the right thigh, and reduced popliteal angle, indicative of hamstring injuries. MRI is essential for assessing hamstring strain injuries, particularly intramuscular hamstring injuries [1] as seen in this instance.

Therapeutic interventions included compression bandages, ice application, rest, elevation, and muscle relaxant drugs. Active stretching and isometric exercises were initiated, enabling the patient to walk with crutches within two days. By three weeks, he fully regained the ability to walk without crutches.

After one month, the patient presented with a painless swelling in the popliteal region, clinically consistent with a popliteal cyst. Given the previous history of sustained intramuscular hamstring injury, a high index of suspicion

should be maintained regarding its potential contribution to the formation of the popliteal cyst.

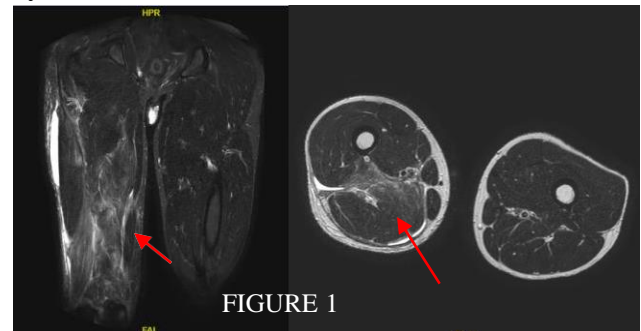


Figure 1: High signal area (arrow) on MRI indicating intramuscular hamstring injury



Figure 2: Clinical appearances of Right Popliteal cyst (Arrow)

CONCLUSION:

Hamstring injuries are common, but the intramuscular variant is rare in road traffic incidents, typically associated with biomechanical models observed more frequently in athletic injuries [1]. Clinical diagnosis alone poses challenges in such cases; MRI is crucial for accurate diagnosis and guiding future management [1]. Clinicians must be vigilant not to overlook potential complications, such as a popliteal cyst, especially in individuals like this swimming coach.

REFERENCES:

1. Intramuscular Tendon Injuries of the Hamstring Muscles: A More Severe Variant? A Narrative Review, Fearghal Kerin