

## Pallbearer's Hip

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### Abstract

**Background:** A 35 year old funeral director sustained an acute injury when his right leg became unstable on rough ground when carrying a heavy oak coffin resulting in lateral hip pain over the following weeks.

**Methods:** An MRI scan confirmed a discrete tear in the Gluteus medius tendon, in keeping with a focal tendonitis Coronal fat-suppressed magnetic resonance imaging (MRI) of right hip demonstrating high-grade insertional tear of gluteus medius tendon with surrounding hematoma in gluteus medius muscle belly.

**Results:** A case of acute traumatic Gluteus medius tendonitis in a Pallbearer, who had no previous history of hip pain. It appears from the history that the injury occurred when the muscle and tendon contracted acutely, principally to support the body on one leg. The gluteus medius muscle is a hip abductor and prevents hip adduction. The mechanism of injury in this case was the acute contraction of the muscle to prevent hip adduction.

**Conclusions:** Historically, tears of the gluteus medius and minimus have been thought to be attritional, and associated with chronic peritrochanteric pain. The Medical literature is punctuated by colloquial pseudonyms, where a condition receives its name from the provoking activity: Tennis Elbow, Game Keepers Thumb, Joggers Foot, and Little League Elbow to name a few. Rotator cuff injuries of the shoulder joint are also often referred to as Swimmers shoulder, or Tennis shoulder.

Could this injury to the gluteus medius tendon, be the first reported case of "Pallbearer's Hip".

### History

A 35 year old funeral director sustained an acute injury in the course of his work. He was situated on the front left, carrying a heavy oak coffin containing a deceased male who weighed over 20 stone. In the process of setting down the coffin, his right leg became unstable on rough ground. To avoid dropping the coffin he straightened his left hip and took the weight of the coffin through his left leg. Over the following weeks he developed lateral hip pain, which he localised to the greater trochanter. Examination

confirmed a swelling and pain at the level of the Greater Trochanter of the hip, which was exacerbated by resisted hip abduction.

### Radiology

An MRI scan confirmed a discrete tear in the Gluteus medius tendon, in keeping with a focal tendonitis Coronal fat-suppressed magnetic resonance imaging (MRI) of right hip demonstrating an insertional tear of gluteus medius tendon with surrounding hematoma in gluteus medius muscle belly. A trochanteric bursitis was also present (Figure 1).

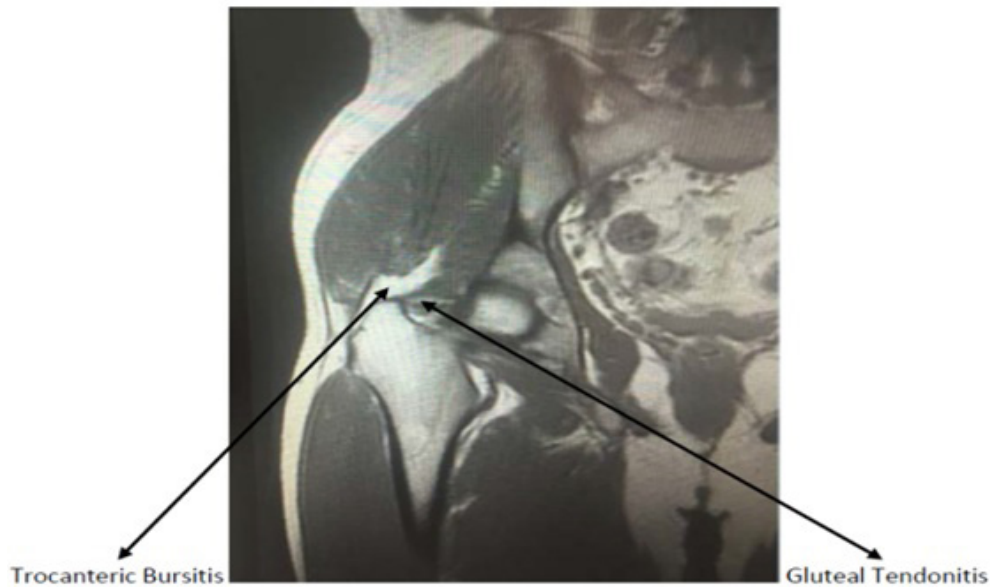


Figure 1: Coronal T 1 images showing the Trochanteric Bursitis and the Gluteal Tendonitis.

## Discussion

Greater trochanteric pain syndrome is a common clinical entity. Lateral hip pain can be caused by a variety of conditions including recalcitrant trochanteric bursitis, external snapping syndromes of the IT band, and gluteus medius and minimus injury.

Although greater trochanteric bursitis is a common clinical diagnosis, partial and full thickness tears of the gluteus medius and minimus tendons are being increasingly recognized as a cause for lateral hip pain. This is due to a higher clinical suspicion, and the greater resolution of MRI scanning systems, which help to identify the pathology.

Gluteus medius and minimus tendonopathy were previously overlooked, as a cause of lateral hip pain and dysfunction. In a 2004 survey 45% of orthopaedic surgeons were not aware that these tendon tears could occur [1]. A 1999 study showed that 83% of patients presenting with lateral hip pain had findings consistent with gluteus medius pathology on MRI compared to only 8% with radiograph appreciable bursal inflammation [2].

The first reported case of an acute traumatic tear of the gluteus medius and minimus that occurred without antecedent peritrochanteric hip pain occurred as recently as 2012 [3].

Morphologic similarities between the abductor mechanisms of the hip and shoulder have given rise to the term rotator cuff tear of the hip. Although the true incidence of gluteus medius and minimus tears in the general population is unknown, the association between these tears and recalcitrant lateral hip pain has been described as greater trochanteric pain syndrome.

Historically, tears of the gluteus medius and minimus have been thought to be attritional, and associated with chronic peritrochanteric pain, found incidentally during fracture fixation or hip arthroplasty. We present a case of acute traumatic Gluteus medius tendonitis in a Pallbearer, who had no previous history of hip pain. It appears from the history that the injury occurred when the muscle and tendon contracted acutely, principally to support the body on one leg. The gluteus medius muscle is a hip abductor and prevents hip adduction. The mechanism of injury in this case was the acute contraction of the muscle to prevent hip adduction. The Medical literature is punctuated by colloquial pseudonyms, where a condition receives its name from the provoking activity: Tennis Elbow, Game Keepers Thumb, Joggers Foot, and Little League Elbow to name a few. Rotator cuff injuries of the shoulder joint are also often referred to as Swimmers shoulder, or Tennis shoulder.

Could this injury to the rotator cuff of the hip and specifically the gluteus medius tendon, with an associated bursitis be the first reported case of "Pallbearer's Hip"?

## References

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