

SPECIAL SURGERY DEPARTMENT OF RADIOLOGY

HOSPITAL FOR SPECIAL SURGERY DEPARTMENT OF RADIOLOGY AND IMAGING HOSPITAL

Coronal Inversion
Recovery



History: 53 year old man with fall from a ladder

SPECIAL SURGERY

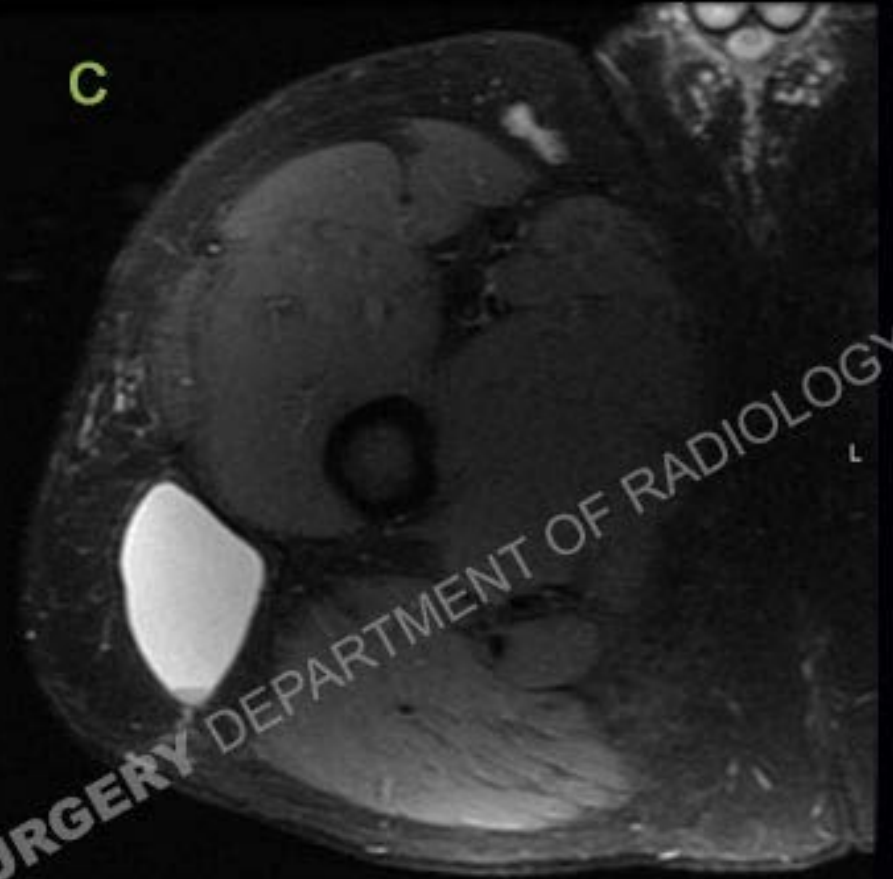
A



B



C



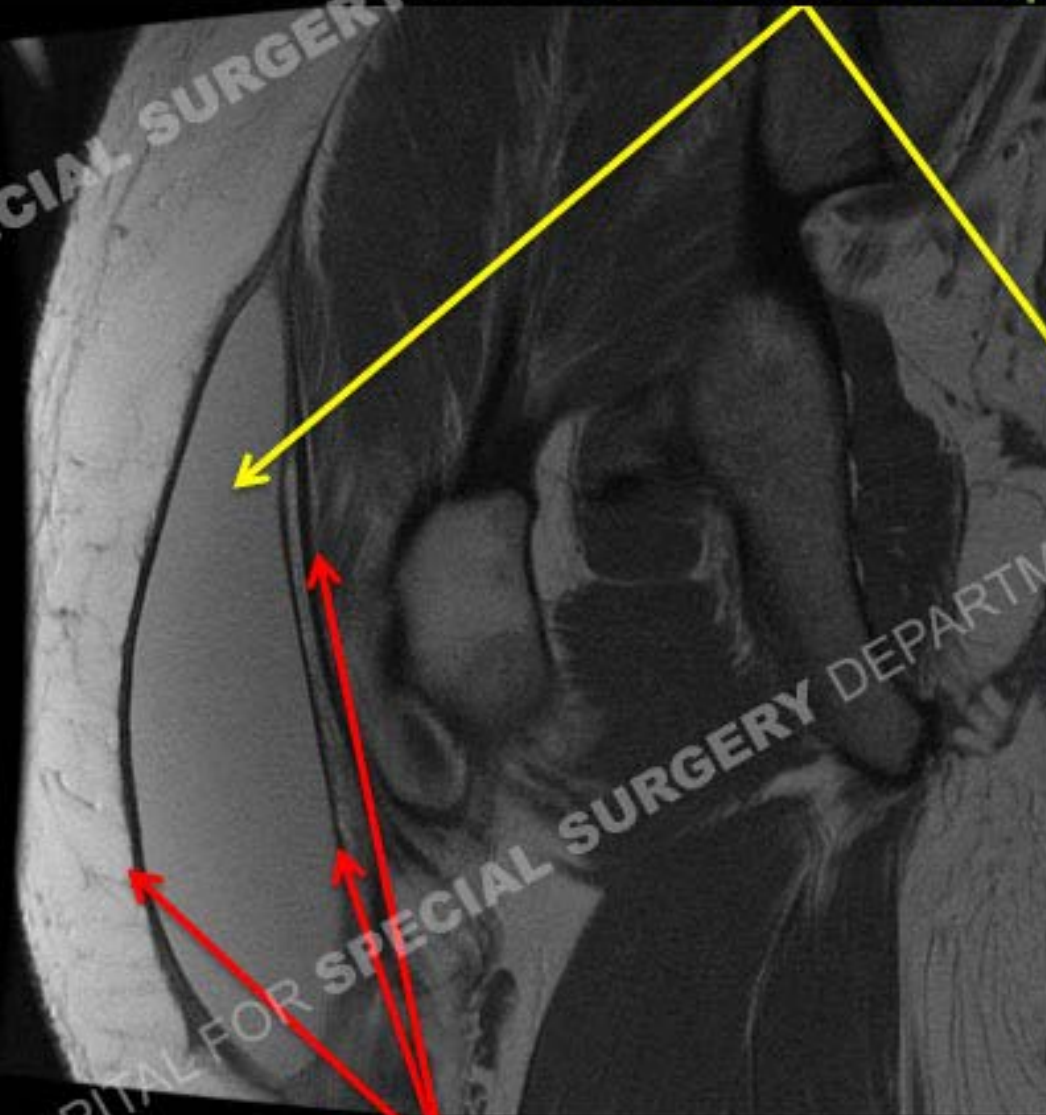
- A: Coronal Proton Density**
- B: Axial Proton Density**
- C: Axial Inversion Recovery**

Findings

All images demonstrate a fluid collection with a well demarcated capsule adjacent to the greater trochanter and situated deep to the subcutaneous fat. At the inferior aspect of the fluid collection is a small amount of intermediate signal debris. The fluid collection gives the appearance of splaying the deep and superficial fascia.



Fluid collection deep to subcutaneous fat

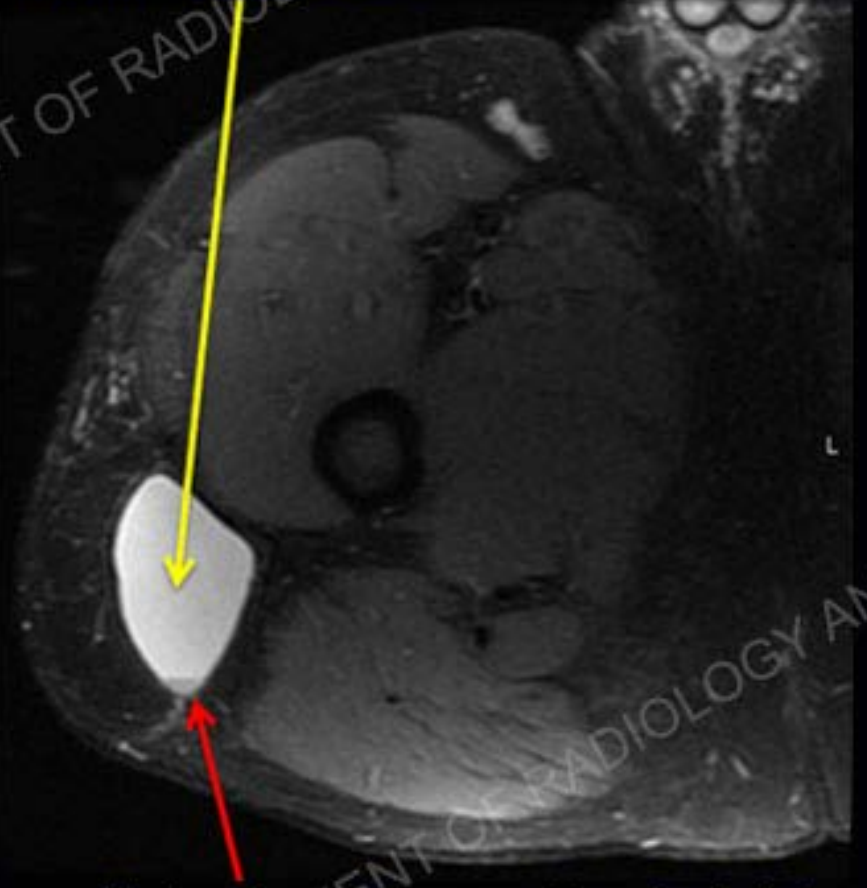


Notice thick capsule with sense of splaying of the fascia



Fluid collection with surrounding capsule and splaying of fascia

Fluid collection

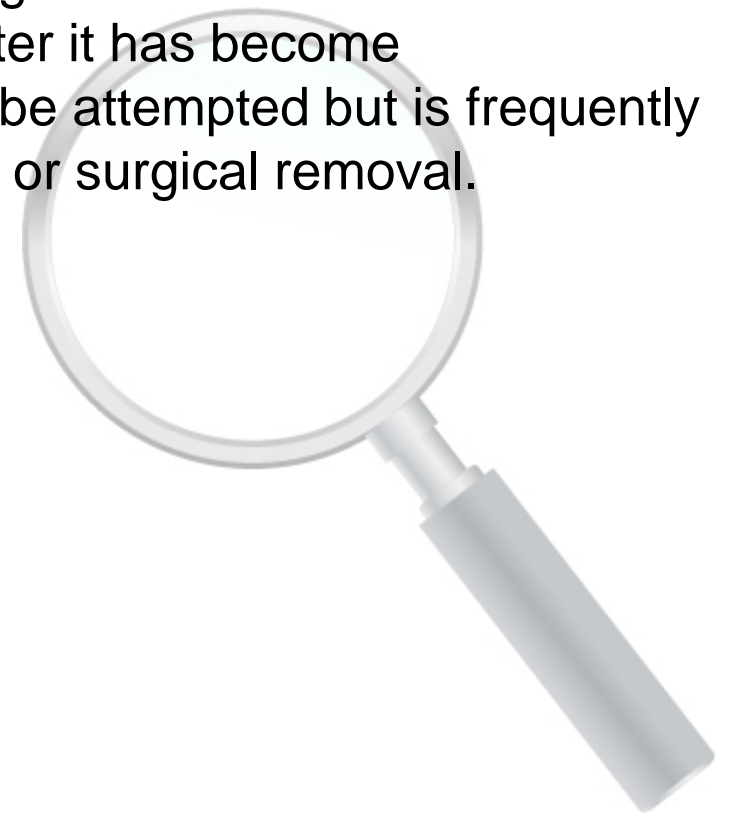


Intermediate signal, hemorrhagic debris

Diagnosis: Morel-Lavallee Lesion

Morel-Lavallee (ML) injury is an internal de-gloving of the fascia from the adjacent subcutaneous fat. Technically referring to a shearing injury around the greater trochanter, the injury is most typically seen at areas of prominent subcutaneous fat with the greater trochanteric area being most common. Other locations are around the knee and lumbar spine. The injury can have multiple appearances on MR imaging based on the degree of seroma that has formed or a greater degree of hemorrhage and organizing hematoma.

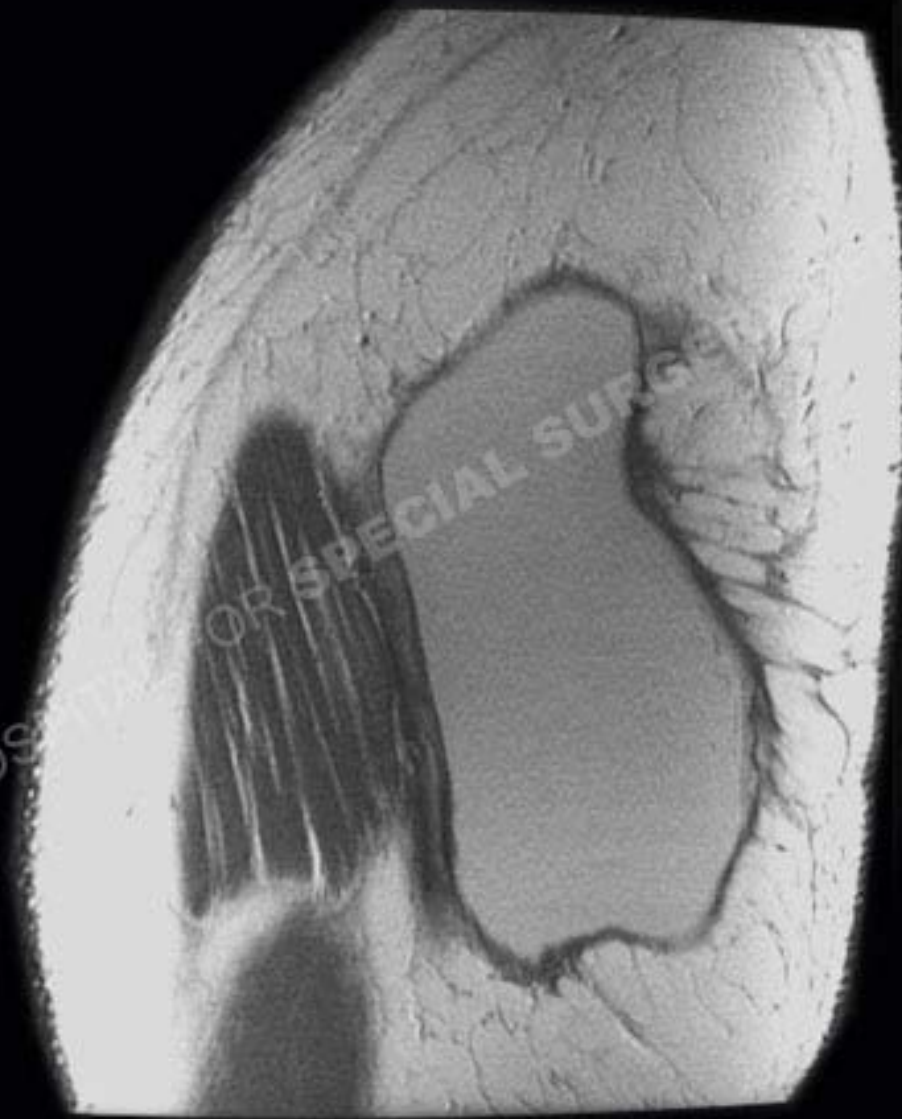
The injury can be problematic as it may lead to necrosis of the adjacent tissue as well as infection. In the acute setting debridement is often performed. If the lesion is only recognized after it has become encapsulated, a percutaneous drainage can be attempted but is frequently unsuccessful necessitating multiple attempts or surgical removal.





These images are 10 months after the prior exam and are after attempted aspiration. Notice either residual or recurrent fluid with the thickened surrounding capsule

Sagittal proton density images of 10/13 (A) and 6/14 (B) showing again either recurrent or residual fluid collection with a thickened surrounding capsule that demonstrates interval, slight irregular architecture that may be related to adjacent scarring.



A



B

Resources

Morel-lavallée Lesion: Review With Emphasis On MR Imaging.Mellado JM, Bencardino JT.Magn Reson Imaging Clin N Am. 2005 Nov;13(4):775-82.

Morel-Lavallee lesion.Powers ML, Hatem SF, Sundaram M.Orthopedics. 2007 Apr;30(4):250, 322-3.

