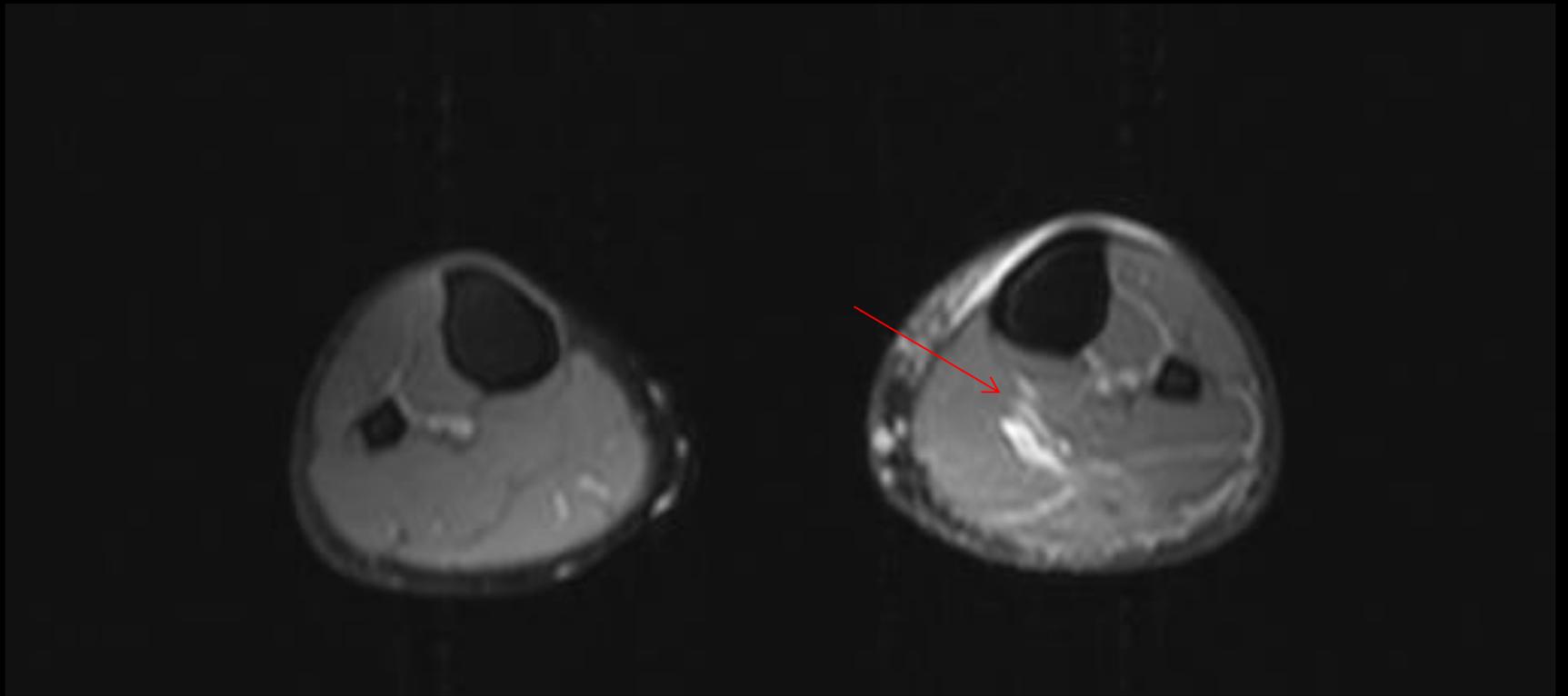
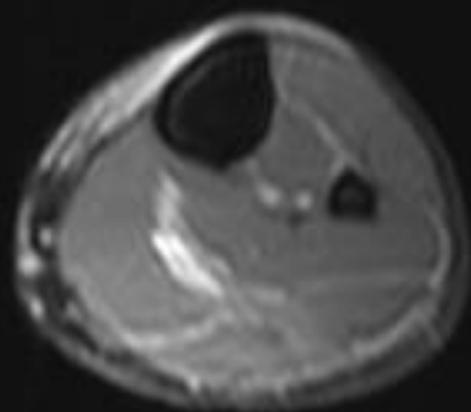
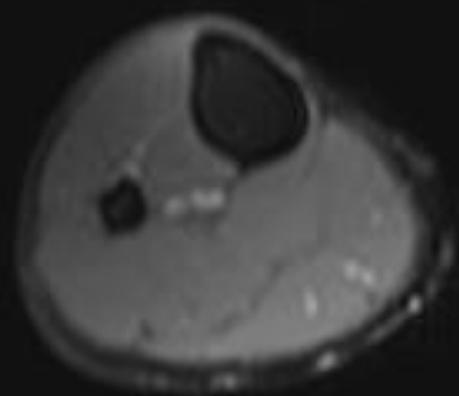
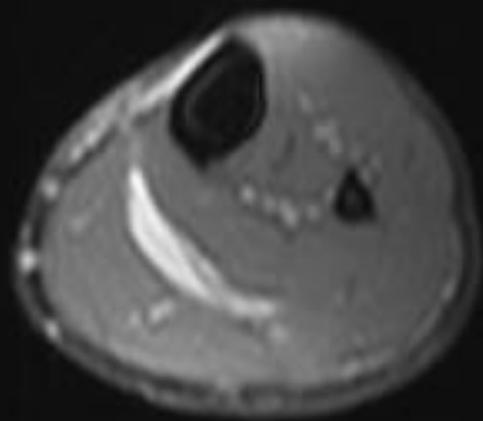
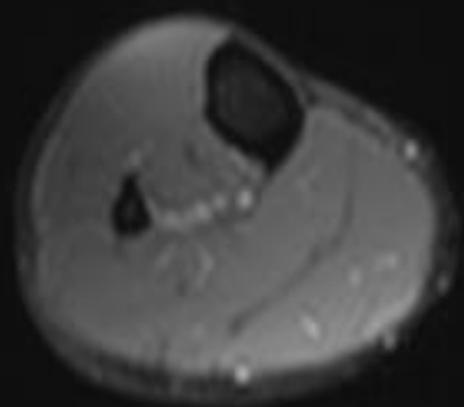


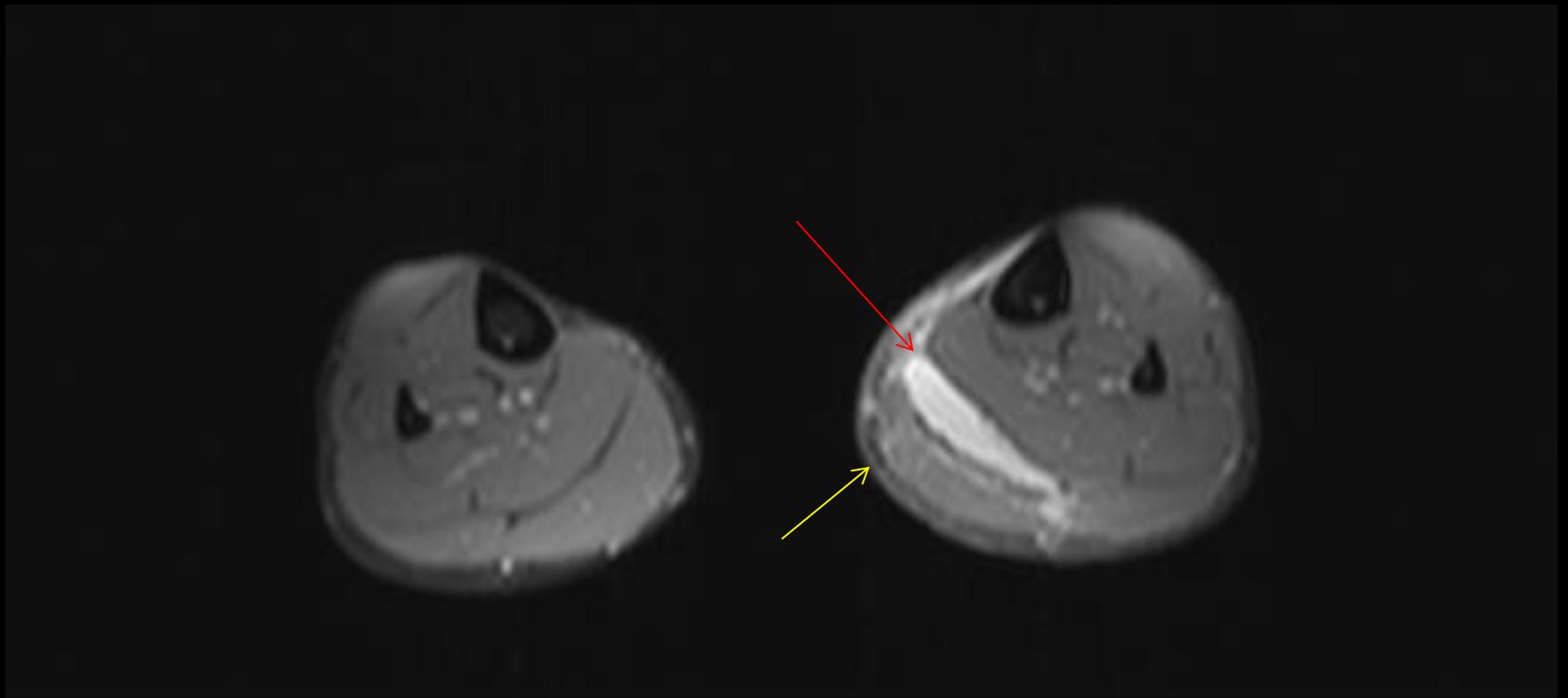
- ▣ 35M injured his left leg while playing basketball. He went to launch for a drive to the hoop and felt a snap/pop at the back of his calf. Gradual worsening of the pain of his upper calf. Decreased ROM of ankle.



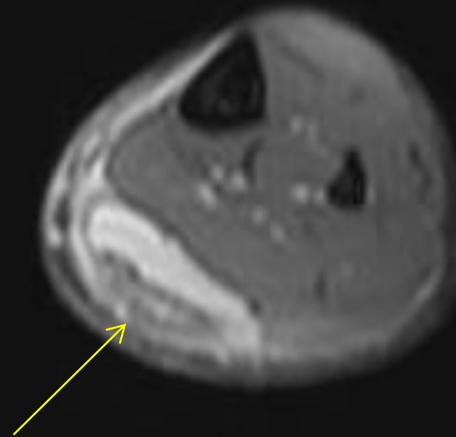
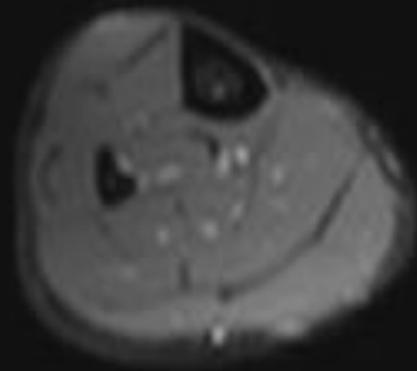
Focusing on the region between the medial head of the gastrocnemius muscle and the soleus muscle.

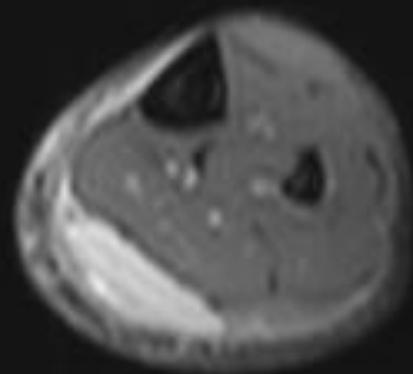
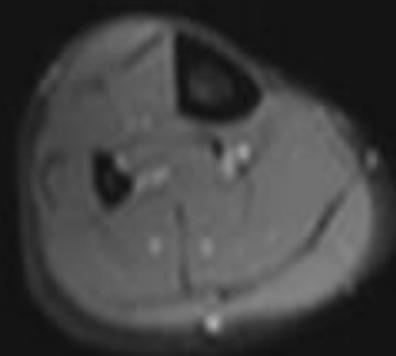


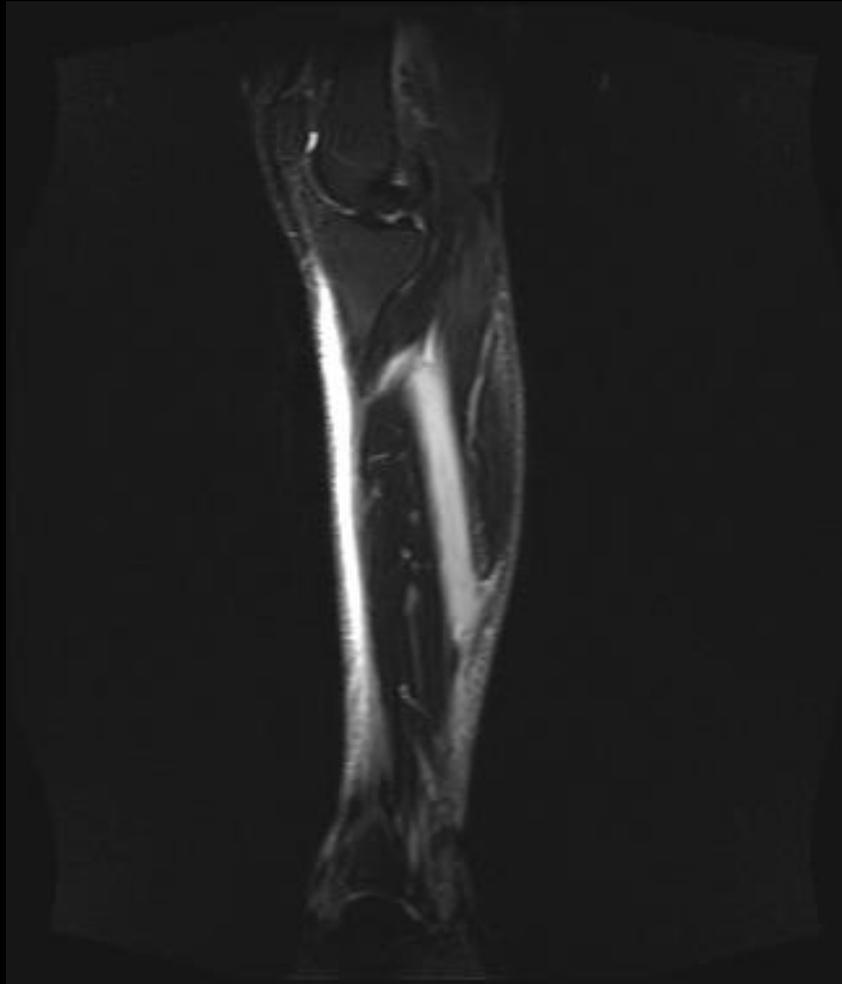




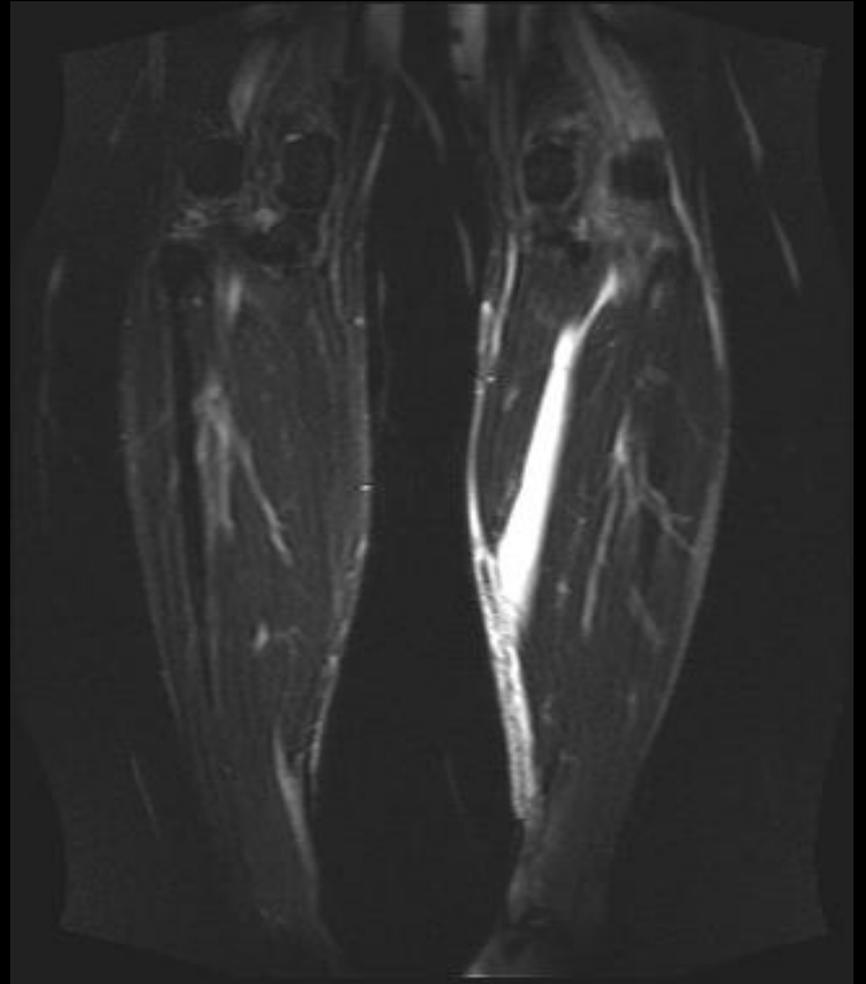
Fluid between the medial head of the gastrocnemius muscle and soleus muscle.
Edema within the medial head of the gastrocnemius muscle.







Sagittal

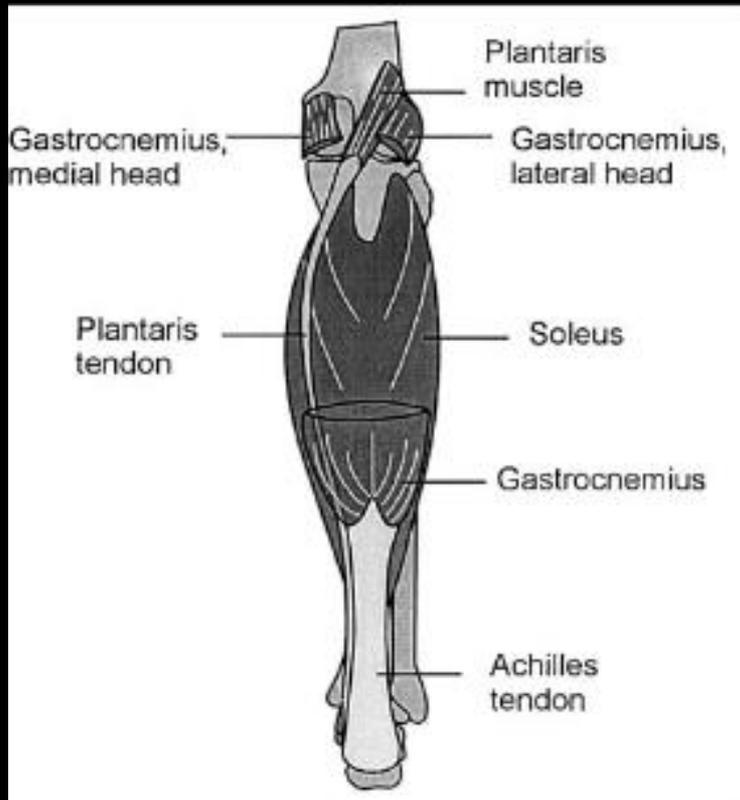


Coronal

Tennis Leg

What?

- ▣ Medial calf injury consistent of a musculotendinous disruption of varying degrees in the **medial head of the gastrocnemius muscle** resulted from an acute, forceful push-off with the foot.
 - US findings in the 141 patients included rupture of the medial head of the gastrocnemius muscle in 94 patients (66.7%), fluid collection between the aponeuroses of the medial gastrocnemius and soleus muscles without muscle rupture in 30 patients (21.3%), rupture of the plantaris tendon in two patients (1.4%), and partial rupture of the soleus muscle in one patient (0.7%).
Gonzalo J. Delgado et al Radiology 2002; 224:112-119.



Schematic drawing of the posterior aspect of the lower leg shows components of the posteroperficial compartment of the calf.

Photograph of a dissected cadaveric leg shows the level of interest in tennis leg, the musculotendinous junction of the medial head of the gastrocnemius muscle (arrows) with adjacent plantaris tendon (arrowheads)

How?



An eccentric force is applied to the gastrocnemius muscle, which usually happens when the knee is extended and forced dorsiflexion of the ankle occurs resulting in the gastrocnemius attempting to contract in the already lengthened state. Tearing then occurs at the musculotendinous junction.

How?

- ▣ When an eccentric force is applied to the gastrocnemius muscle, which usually happens when the knee is extended and forced dorsiflexion of the ankle occurs resulting in the gastrocnemius attempting to contract in the already lengthened state.
- ▣ Can also occur during a typical contraction of ankle plantar flexion, especially if the athlete is pushing or lifting a large weight or force.

Why that name?

- ▣ Termed tennis leg because of its prevalence in this particular sport.
- ▣ Can occur in any activity but often associated with particular sports-- hill running, jumping, tennis.

Who?

- ▣ More common in men than in women
- ▣ Athletes and others in the fourth to sixth decade of life.
- ▣ Often seen in the "weekend warrior."
- ▣ Also occurring in daily activities, such as running to catch a bus or climbing stairs.

Clinical symptoms

- ▣ Sudden pain felt in the calf with possibly a “pop” in the calf or a feeling as though someone has kicked the back of their leg.
- ▣ Pain and swelling usually develop during the following 24 hours.

Treatment

- ▣ Conservative (RICE) rest, ice, elevation of the lower extremity, application of ice, and compression (use of supportive elastic dressings).
- ▣ Surgical treatment (fasciotomy) only when an associated compartmental syndrome.

REFERENCES

Gonzalo J. Delgado, MD, Christine B. Chung, MD, Nitaya Lektrakul, MD, Patricio Azocar, MD, Michael J. Botte, MD, Daniel Coria, MD, Enrique Bosch, MD, Donald Resnick, MD. Tennis Leg: Clinical US Study of 141 Patients and Anatomic Investigation of Four Cadavers with MR Imaging and US. Radiology 2002; 224:112-119

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