

Appendix 2. Ultrasound Images and Descriptions

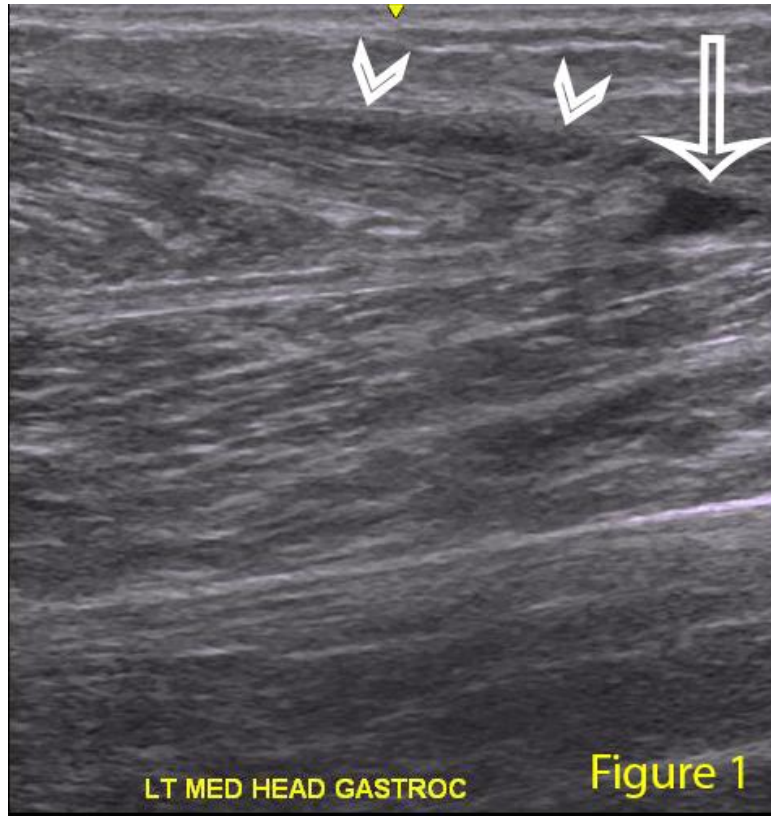


Figure 1. Longitudinal view shows hypoechoic changes at the distal head of the medial gastrocnemius merging with the soleus fascia.

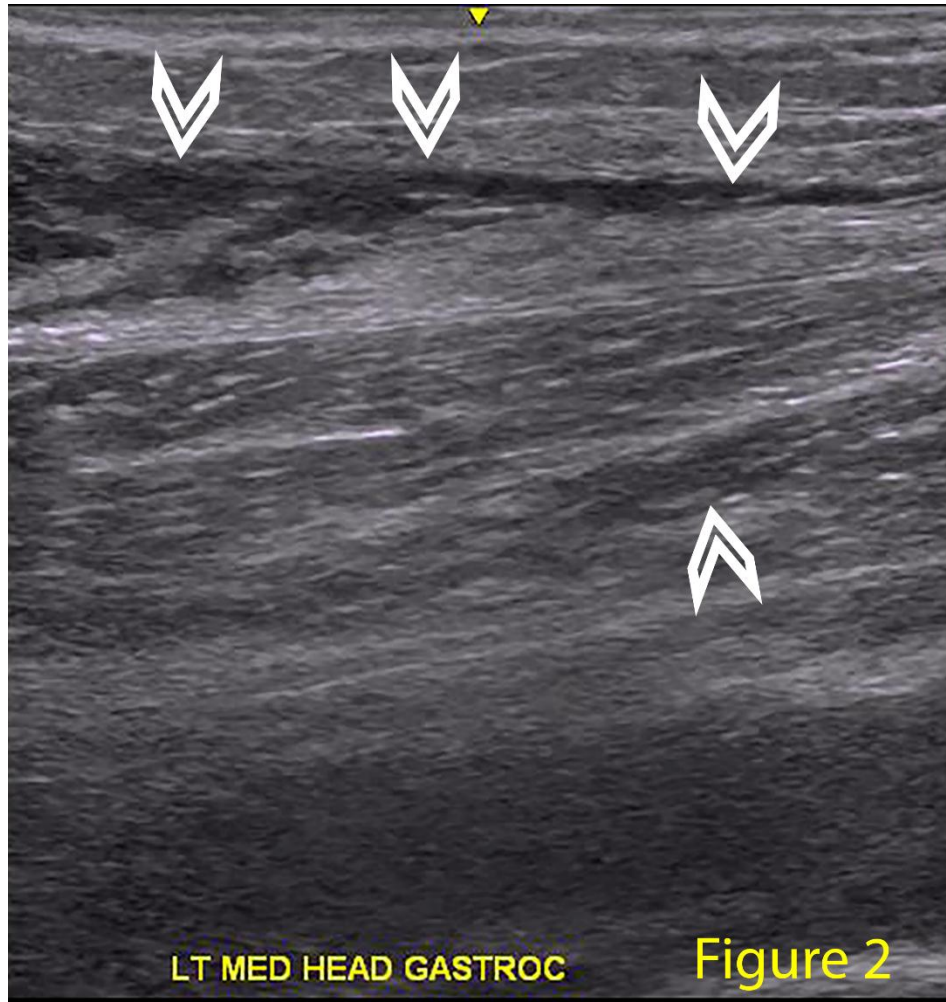


Figure 2. Longitudinal view shows localized edema present throughout the gastrocnemius as well (arrowheads).

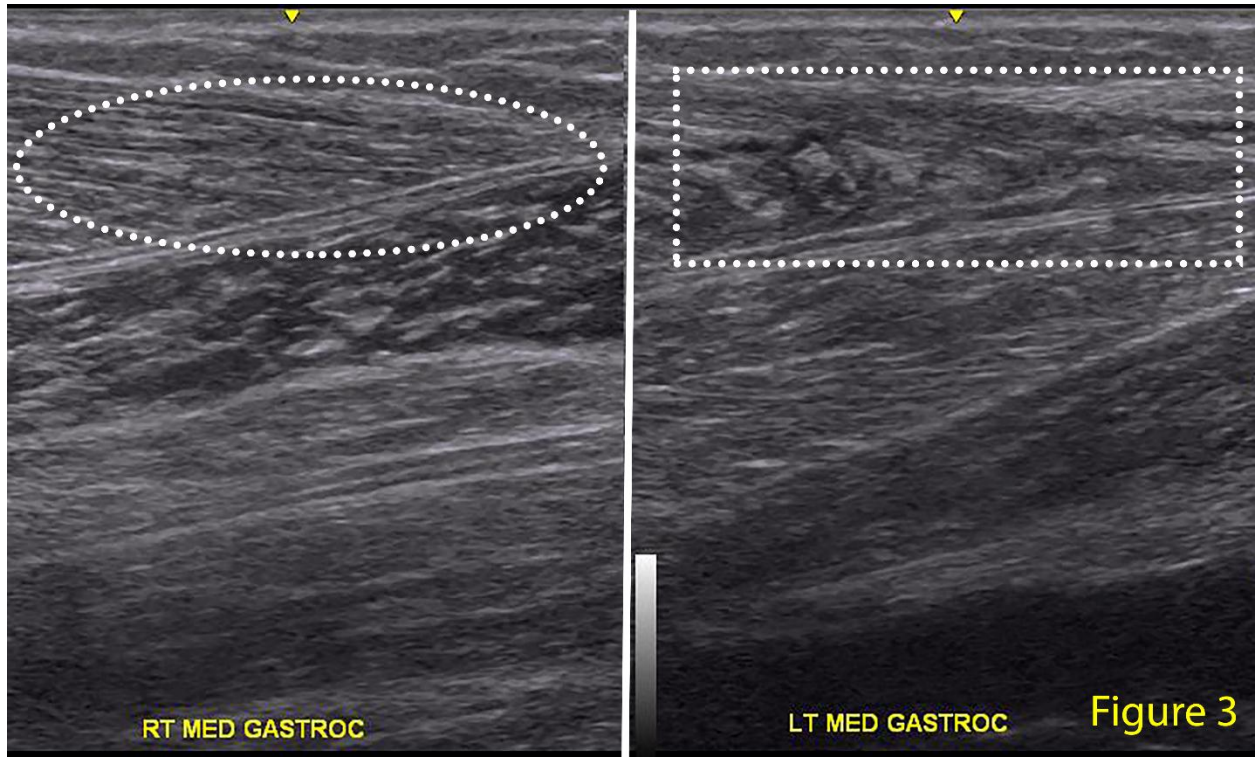


Figure 3. Longitudinal view of the right medial gastrocnemius and left medial gastrocnemius compared in side-by-side views at similar positions on each lower extremity. The V-shaped insertion of the distal gastrocnemius into the soleus fascia is disrupted on the left medial gastrocnemius (rectangle) as compared with the normal-appearing right gastrocnemius at a similar level (oval).

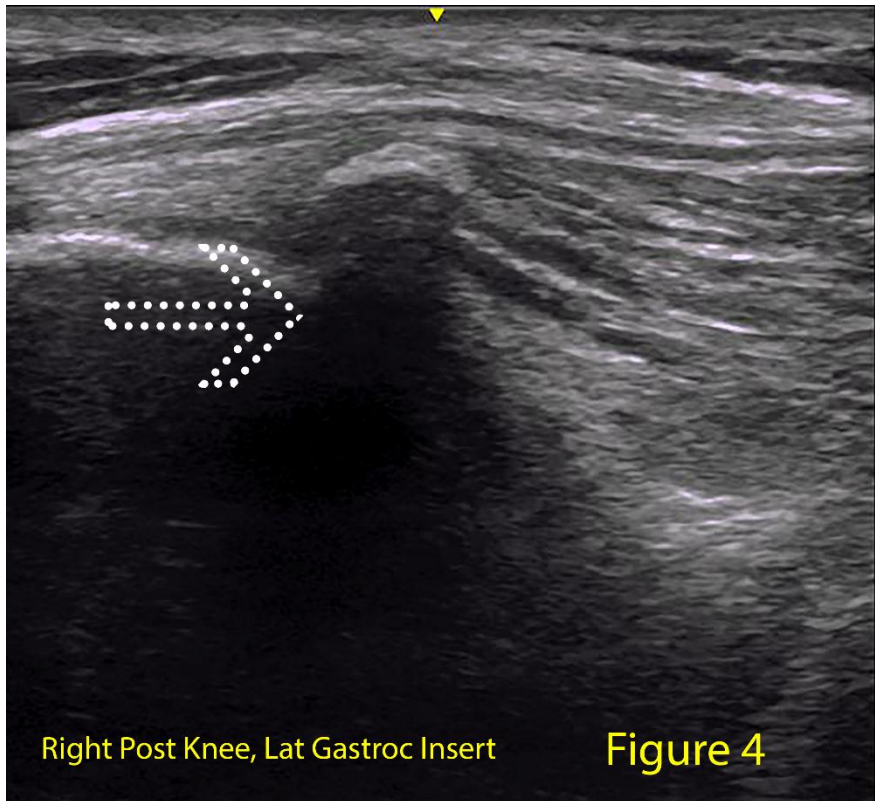


Figure 4. Long view of the posterior lateral corner of the knee shows a fabella and hypoechoic change within the origin of the lateral head of the gastrocnemius.

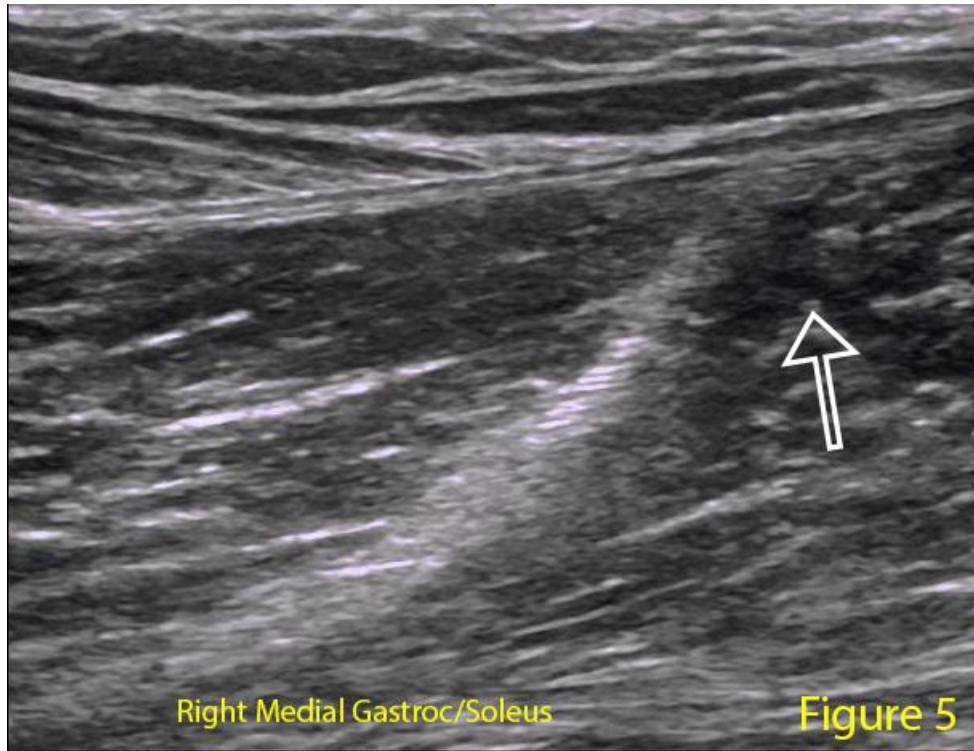


Figure 5. Hypoechoic area present in the soleus (arrow) just distal to the intersection of the medial head of the gastrocnemius muscle with the fascia (transverse view). Note the adjacent area of hyperechoic change that looks like possible scar formation.

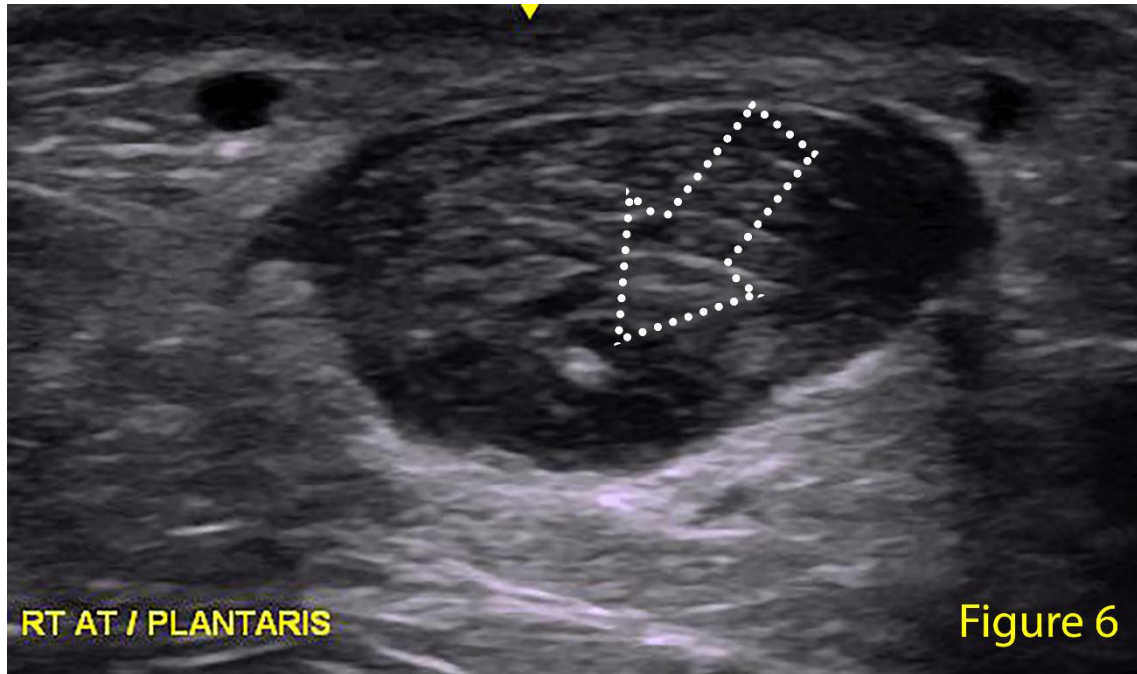


Figure 6. Transverse view of the upper Achilles tendon displays a hyperechoic area of calcification surrounded by hypoechoic change within the medial aspect of the Achilles, 7 cm superior to the calcaneus. This represents the insertion site of a ruptured and retracted plantaris tendon in a 59-year-old male who felt a sudden “pop” while playing tennis 3 months earlier that resulted in only mild limitation of activity.

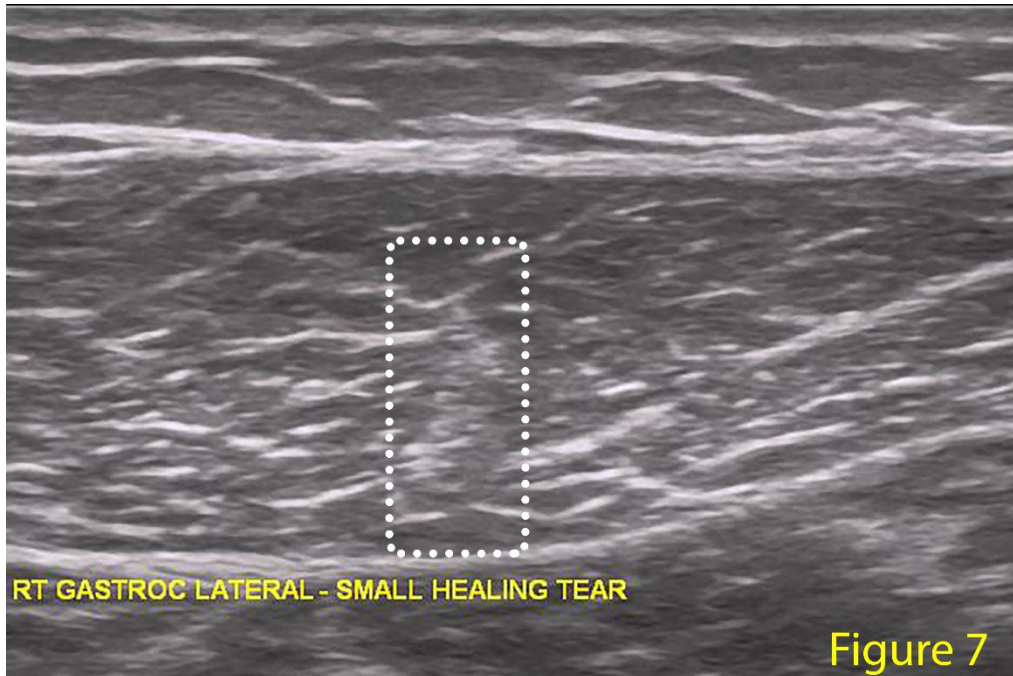


Figure 7. Acute-on-chronic transverse view of the right lateral gastrocnemius with an area of hyperechoic change within the midportion (round rectangle) in a 38-year-old male with a 5-month history of cramping in his right calf while running.

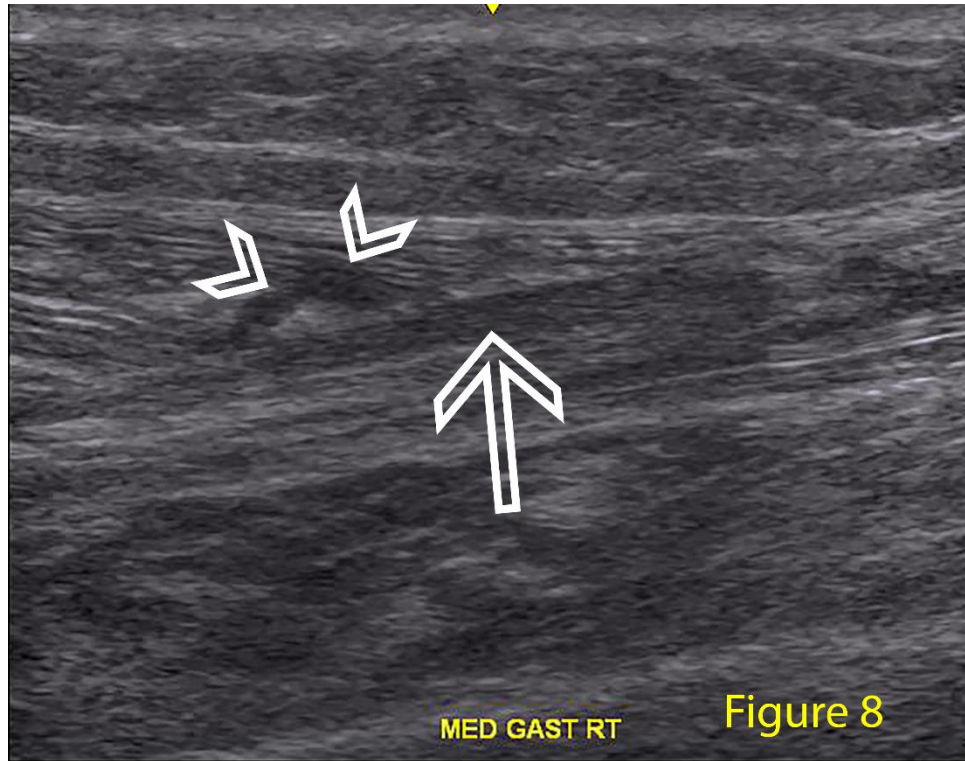


Figure 8. Hypoechoic changes (arrowheads), discontinuity, and fluid layer (white arrow) consistent with a partial tear within the medial gastrocnemius in a 71-year-old male tennis player who felt a tearing sensation in his right proximal calf after sprinting to a return a drop shot. This partial tear was appreciated in this longitudinal as well as on transverse views.

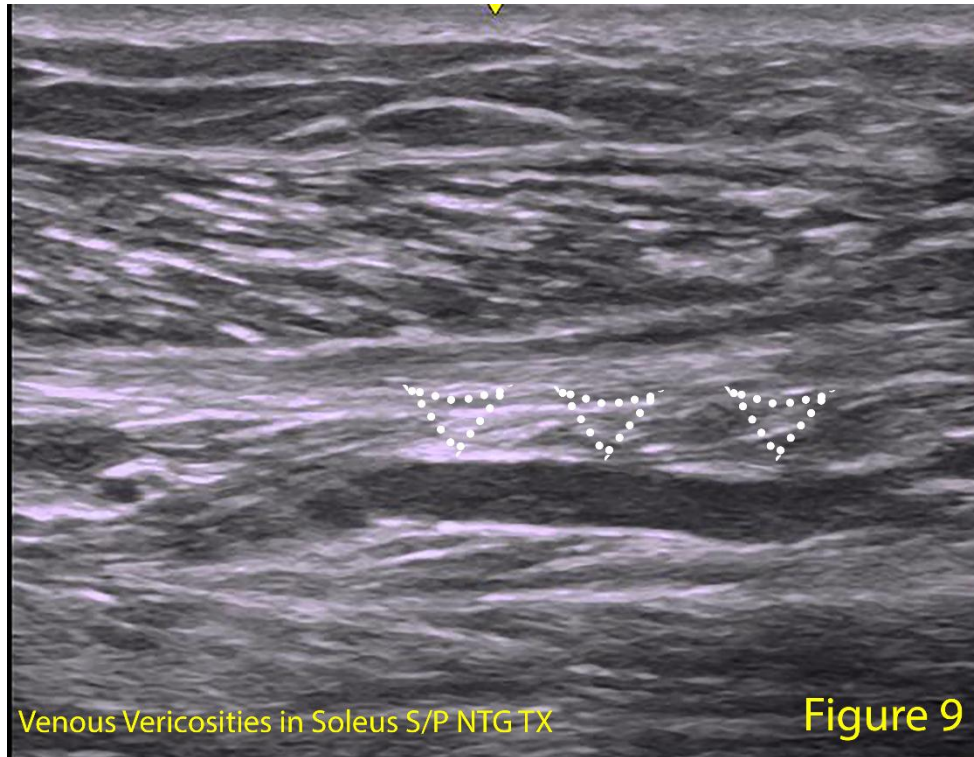


Figure 9. Repeat longitudinal view from same patient as in Figure 8, 2 weeks later. Longitudinal view from a similar level as the previous tear seen 2 weeks earlier demonstrated hyperechoic changes at the fascial plane consistent with early scar formation. No appreciable defects were seen in longitudinal views; only minimal defects were seen in transverse views. There was a small amount of edematous fluid remaining at the distal insertion of the gastrocnemius. Incidentally, interval venous varicosities (arrowheads) were identified, which should not be mistaken for persistent hypoechoic swelling.

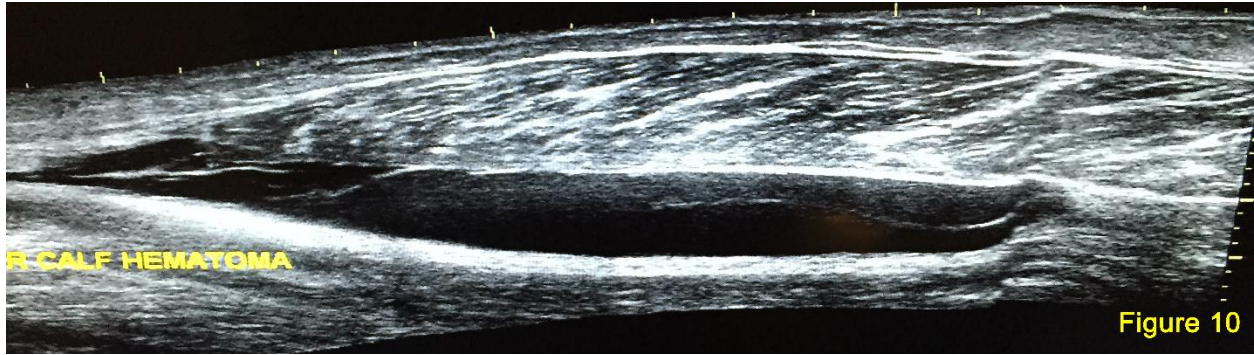


Figure 10. Longitudinal extended field view of the gastrocnemius-soleus complex approximately 10 cm distal to popliteal fossa demonstrating a grade III injury with hypoechoic change arising from a loculated hematoma extending 14 cm and causing fascial separation between the muscle layers. Note the hyperechoic change from transmission of sound waves just below the hematoma.