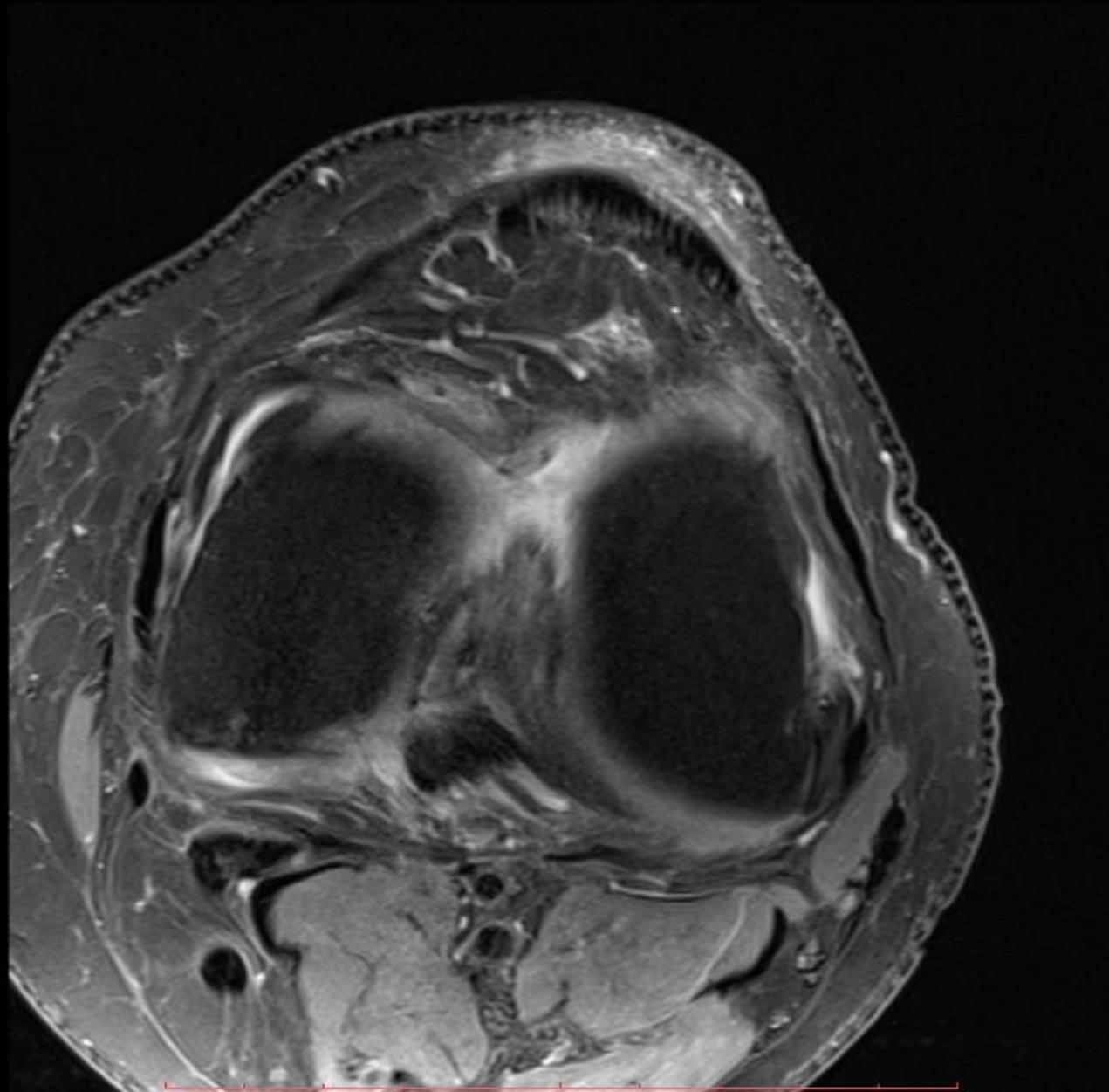
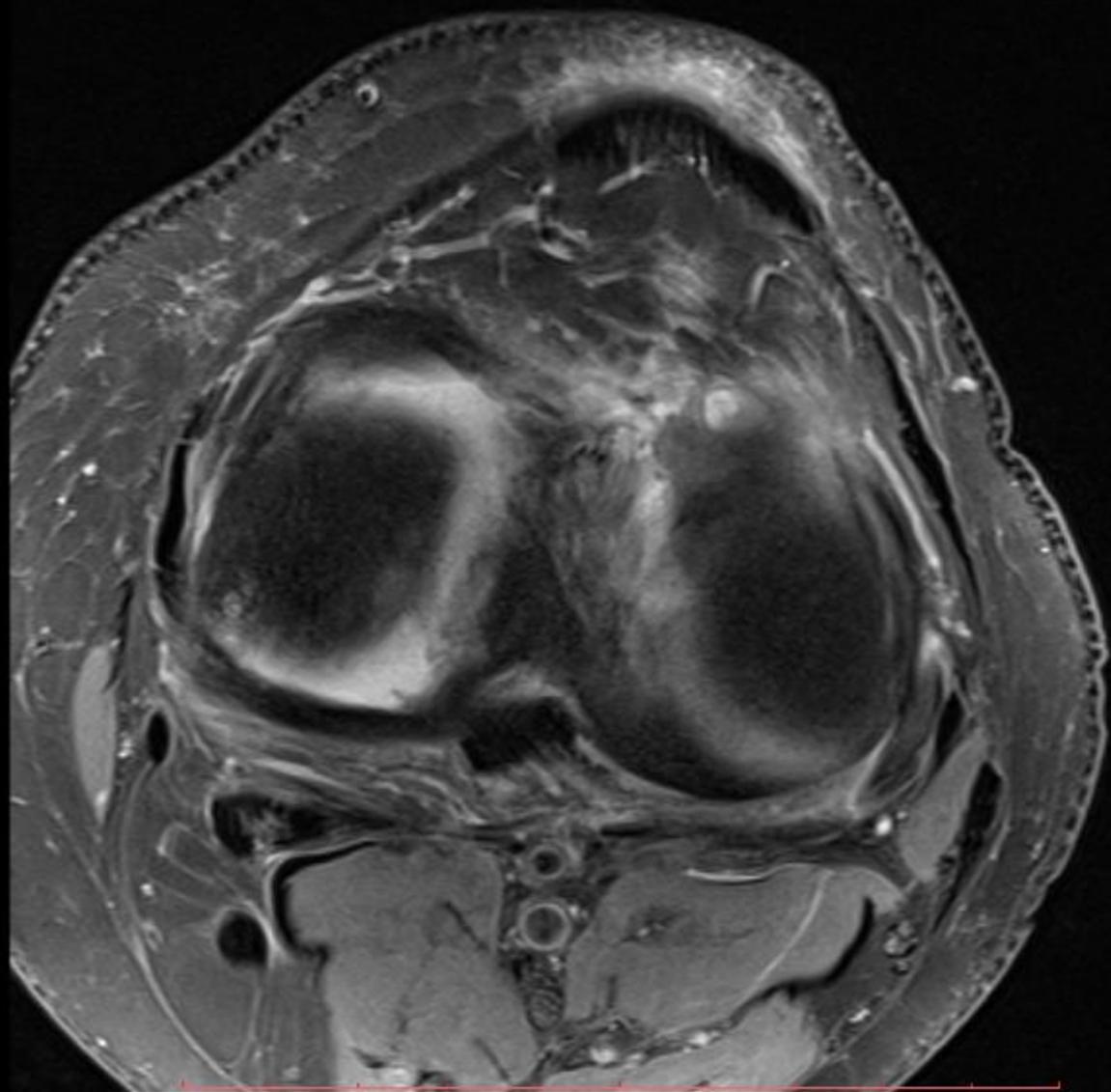


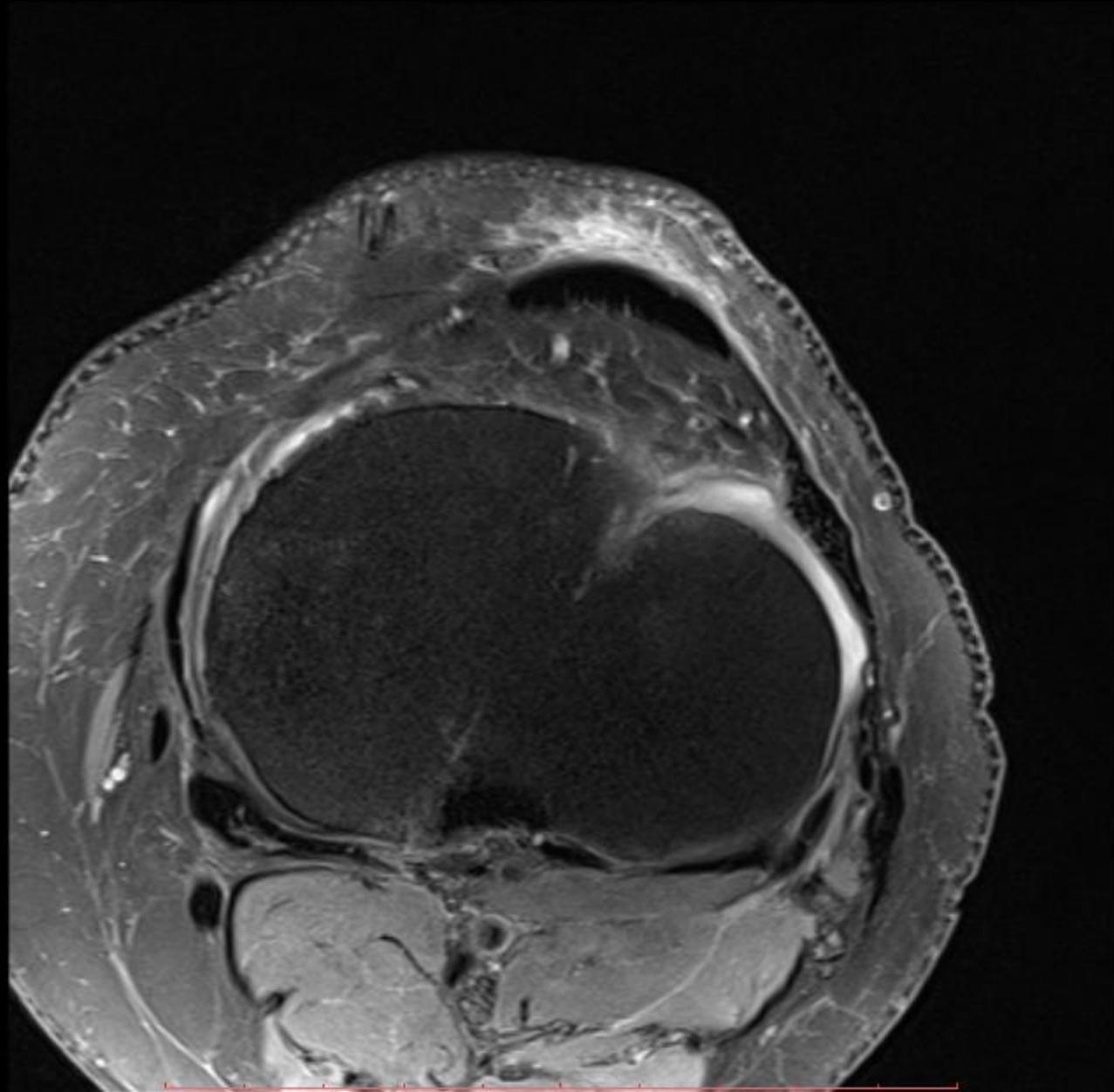
History

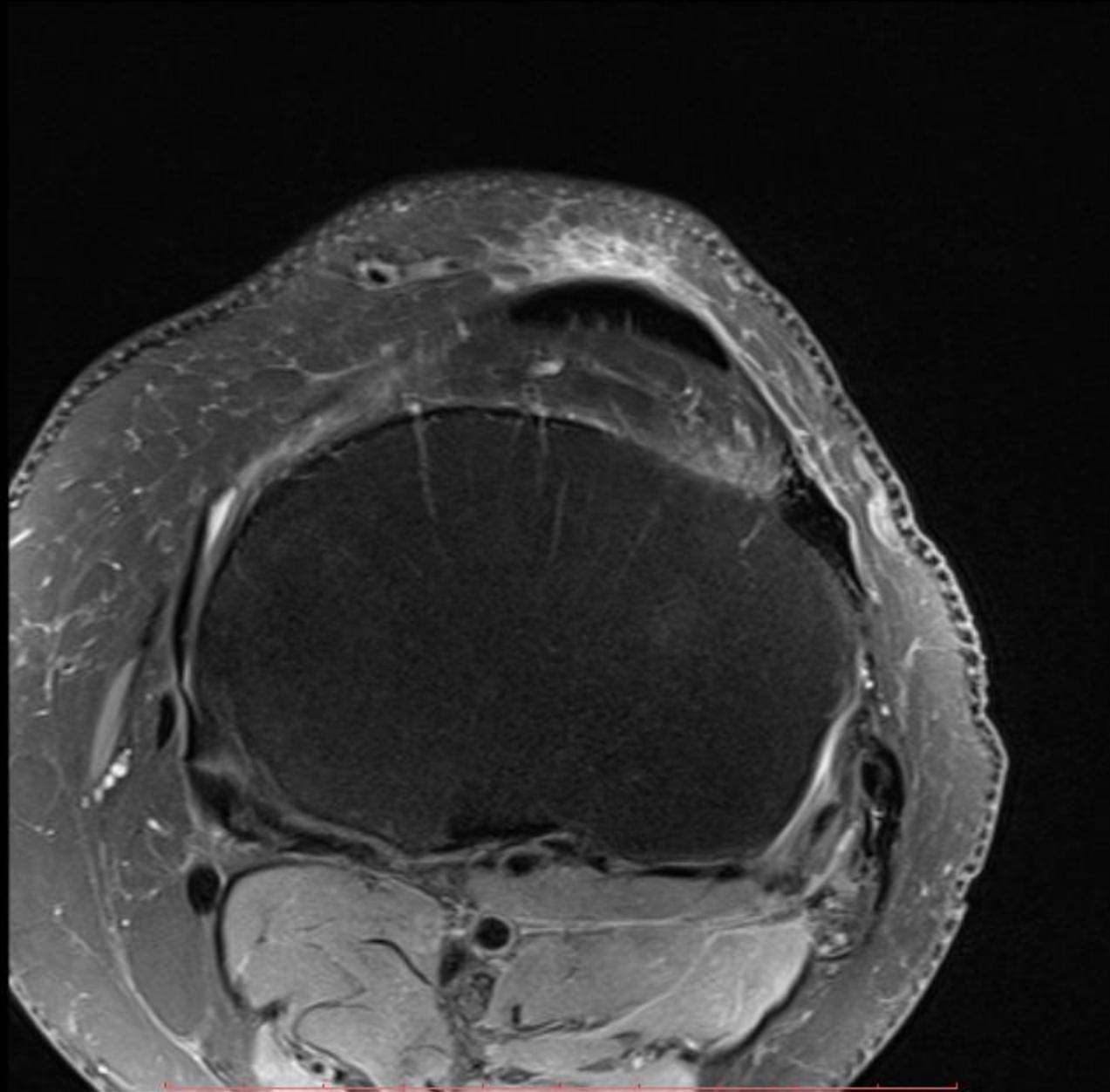
- ▣ 68 yo male with left knee pain

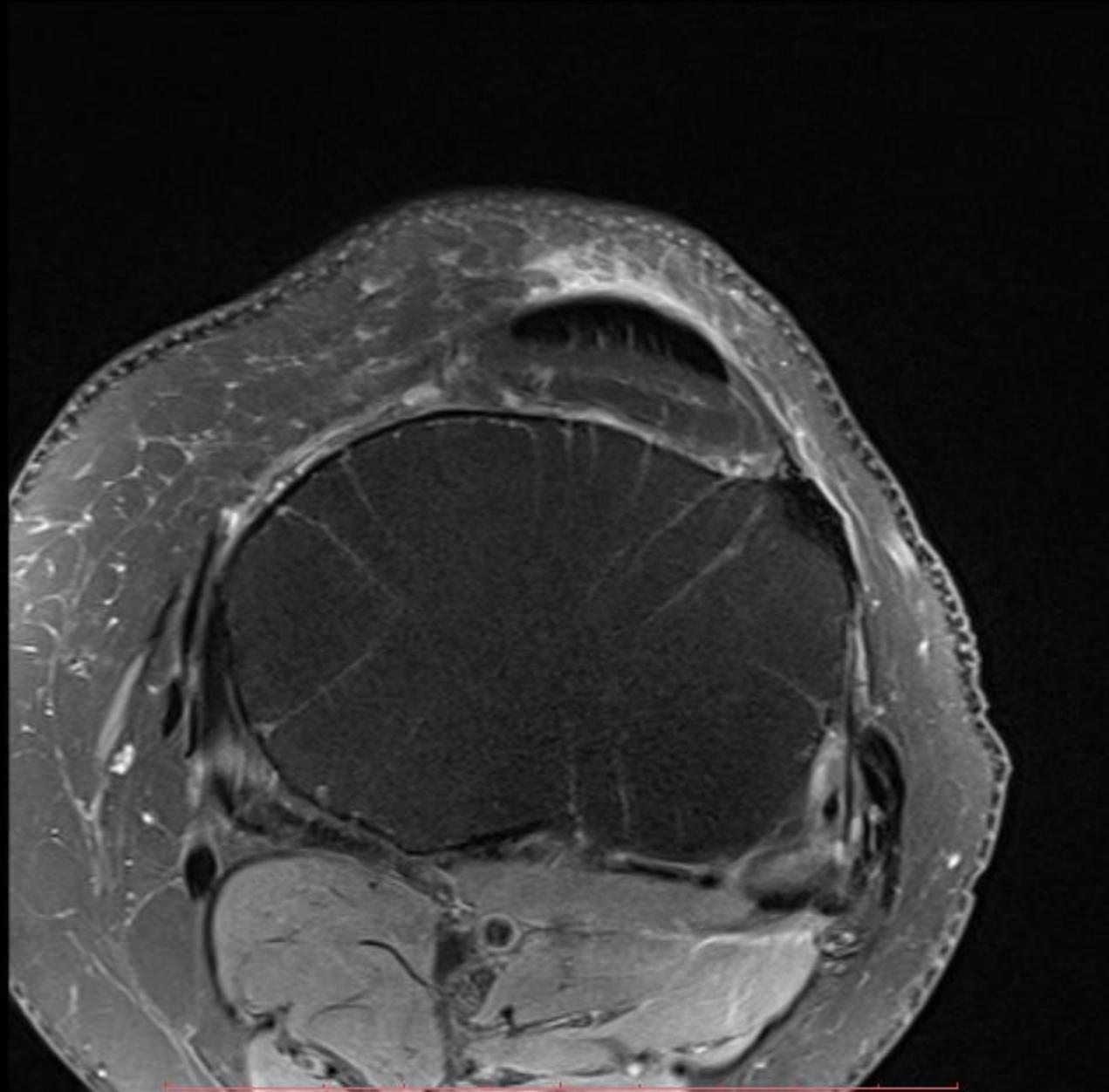


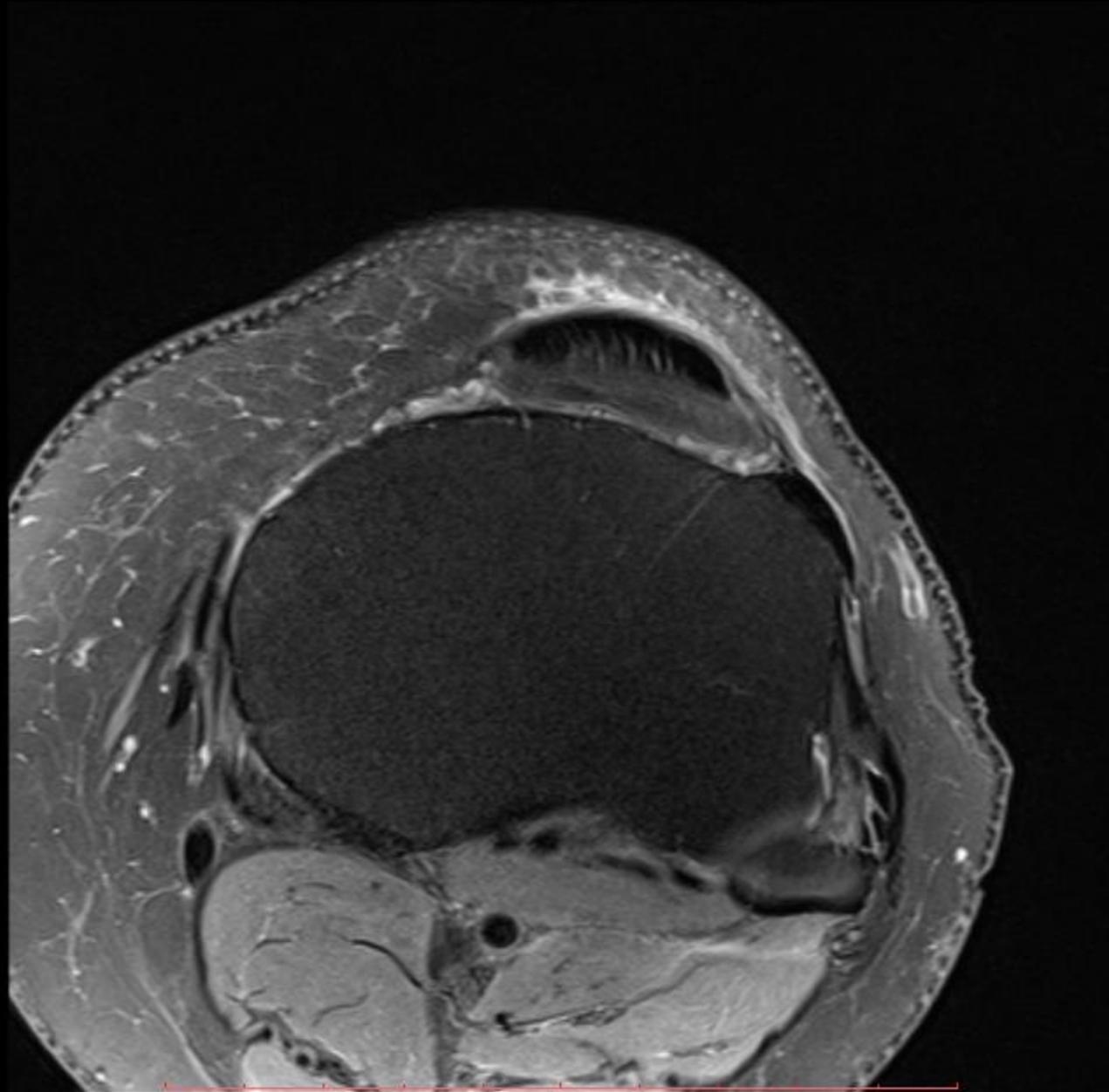




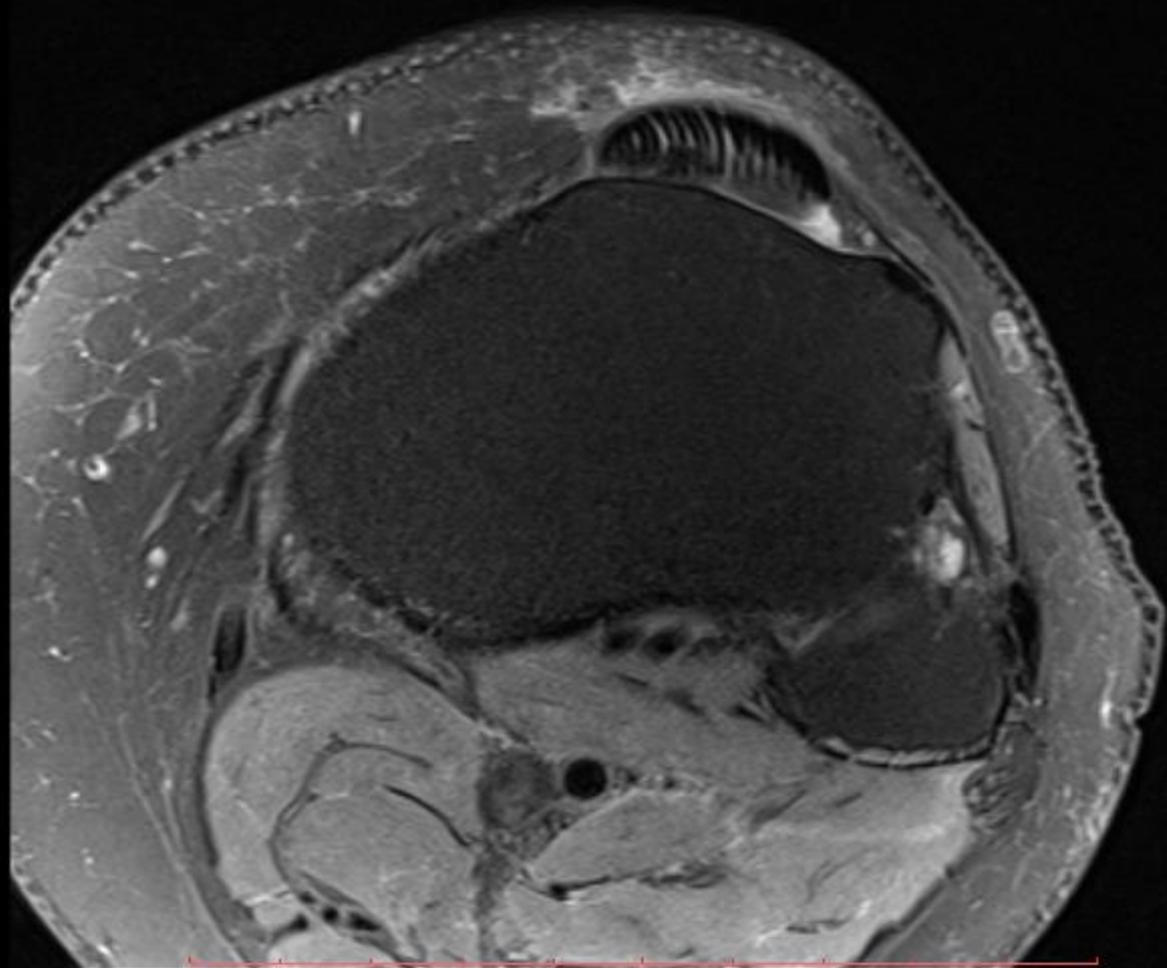


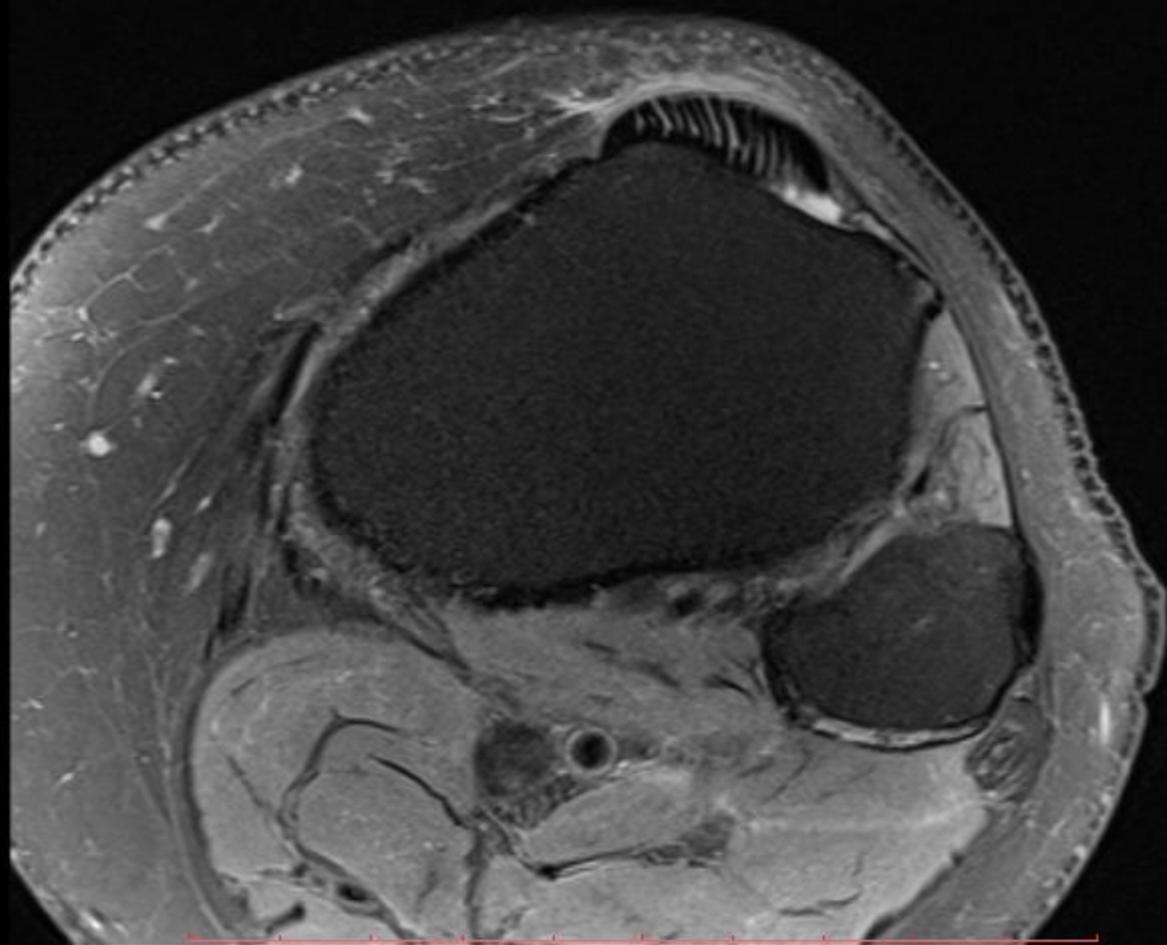


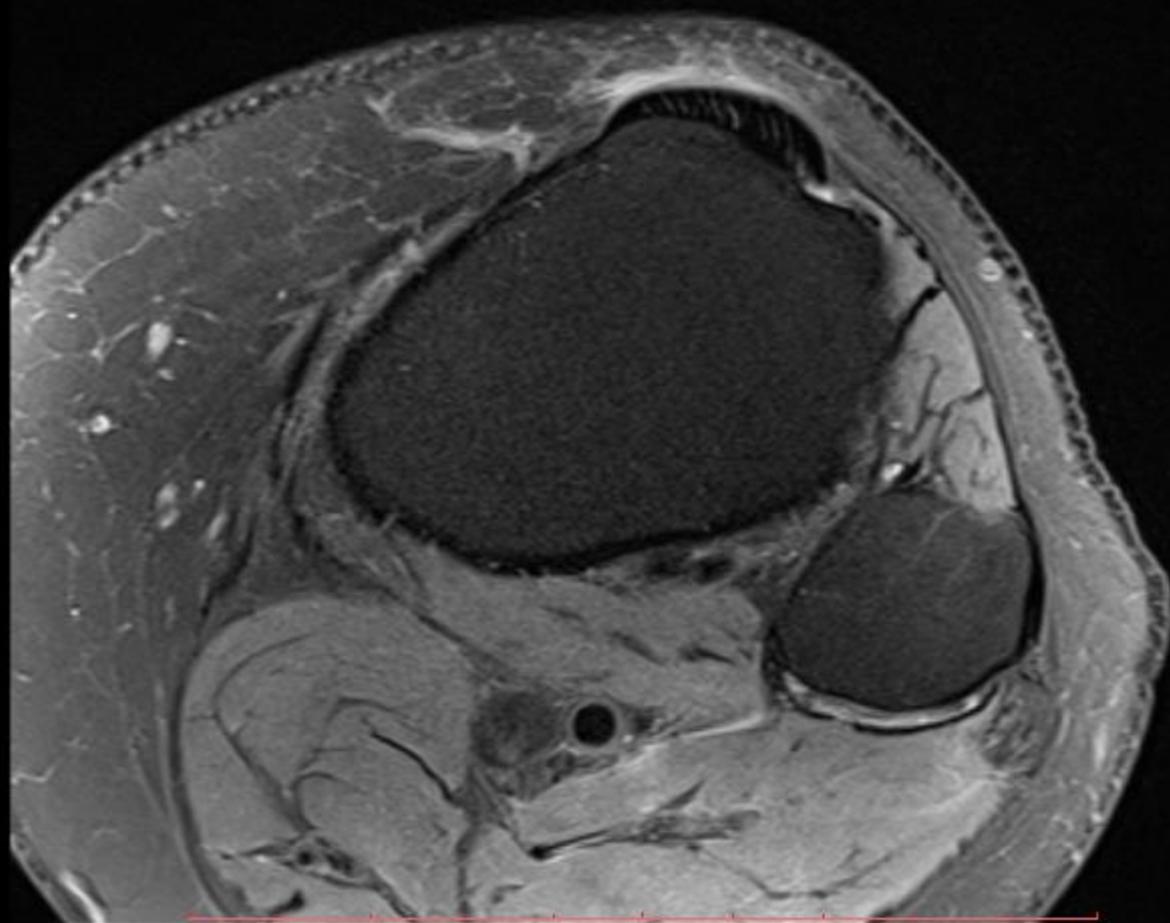


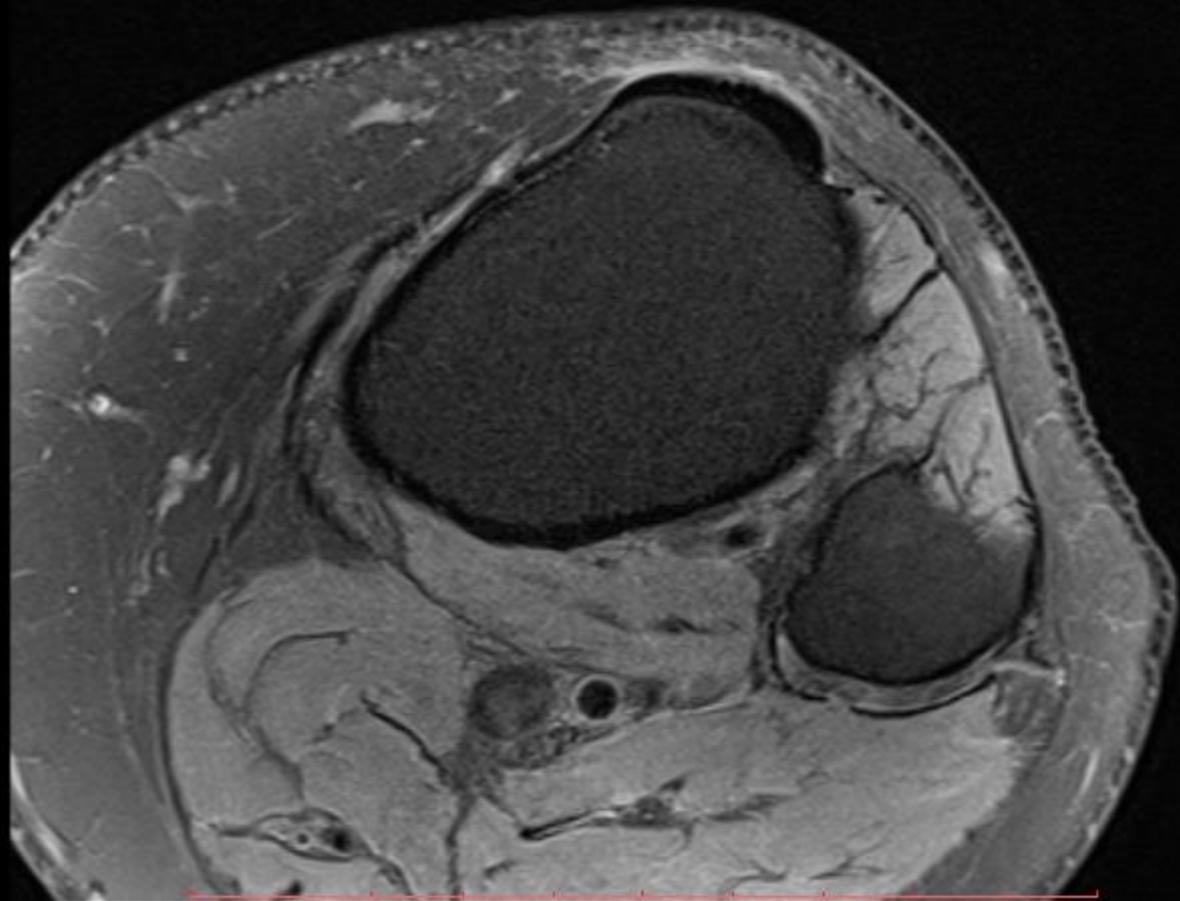


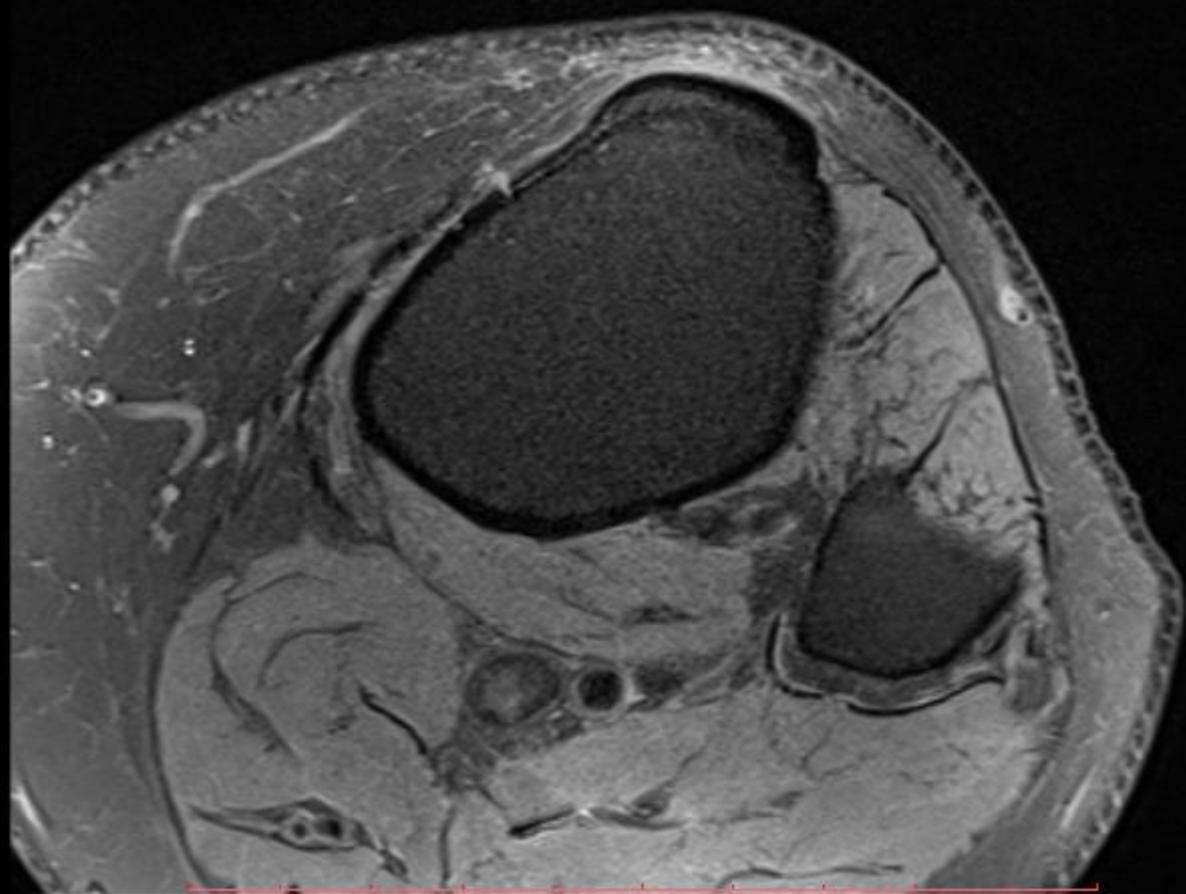


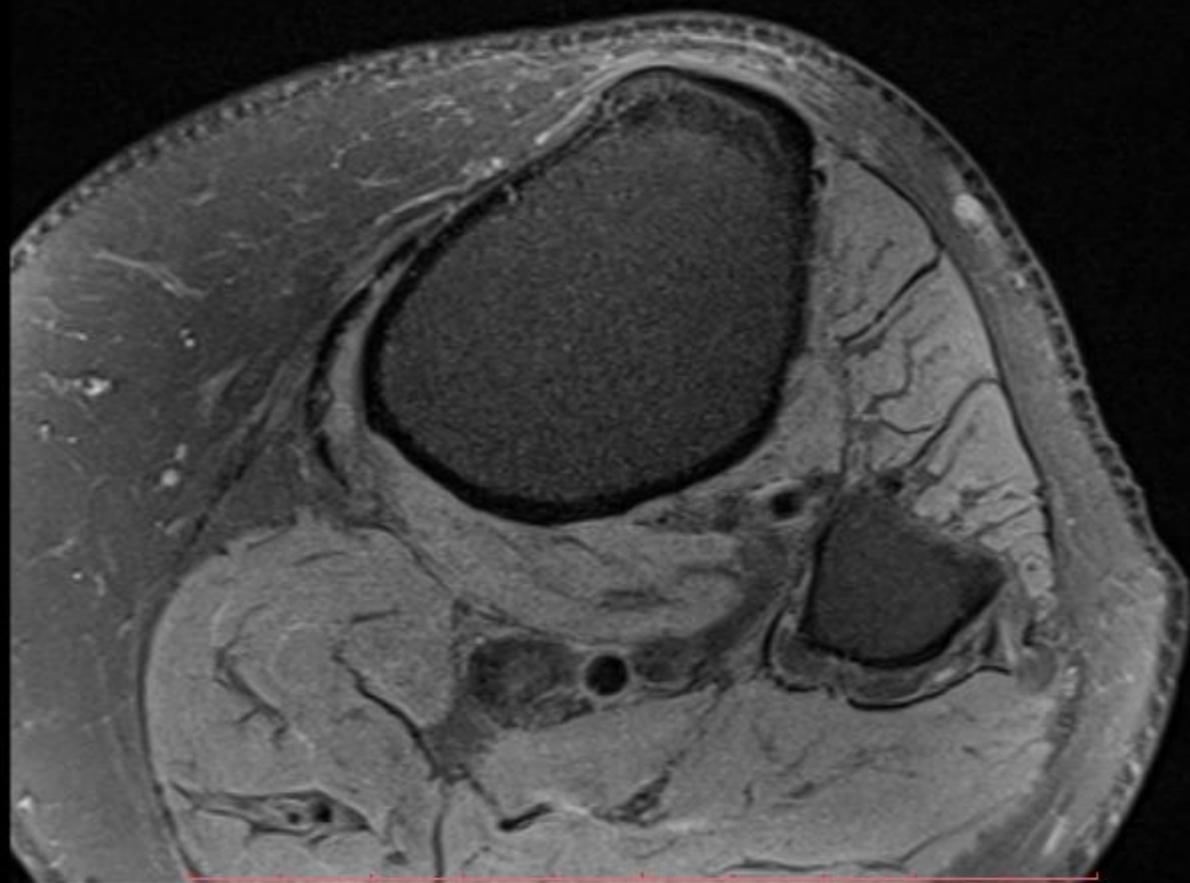






















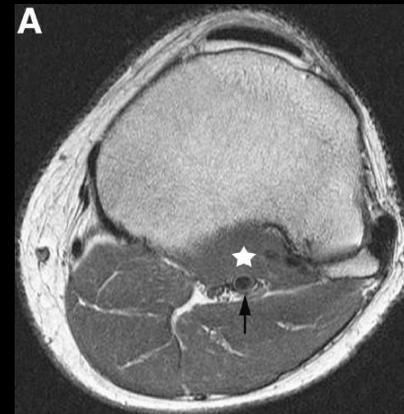
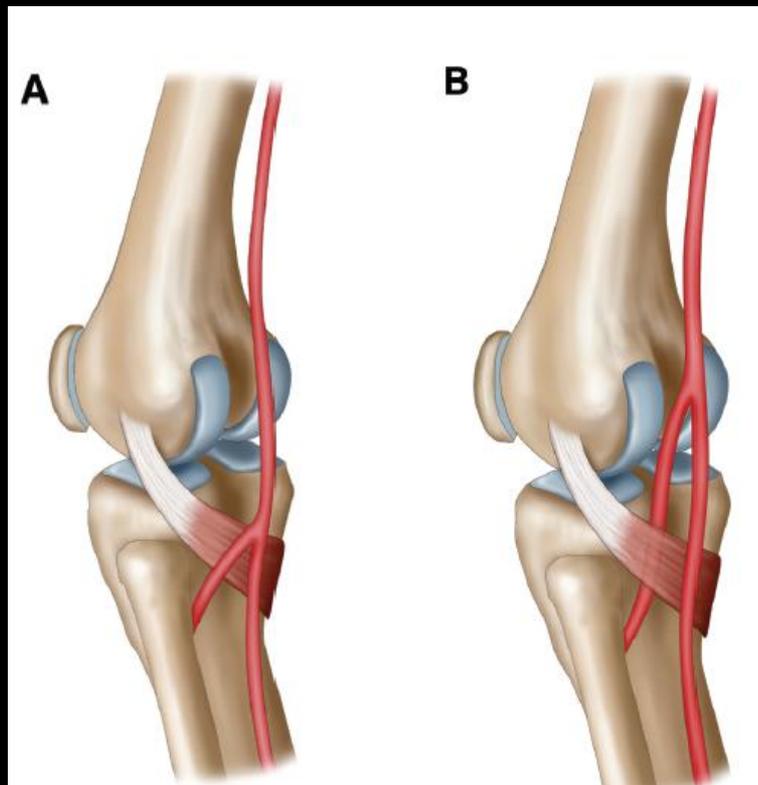




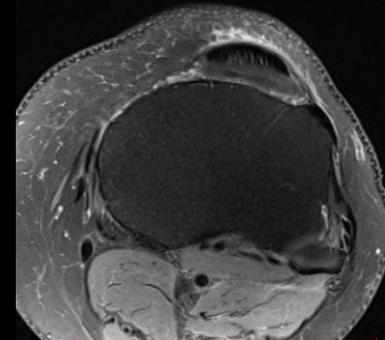




Aberrant Anterior Tibial Artery

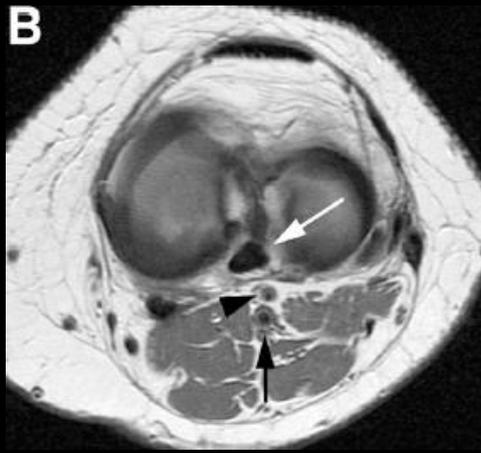


Normal

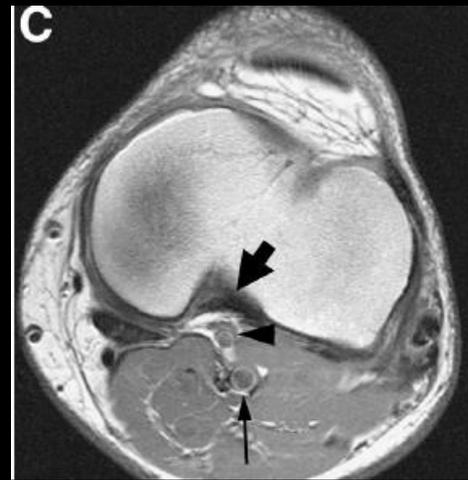


Aberrant

Schematic drawings of the normal and aberrant course of the anterior tibial artery. A, the normal anterior tibial artery branches below the knee joint and passes posterior to the popliteus muscle. B, the aberrant anterior tibial artery branches at or above the superior margin of the popliteus muscle and courses between the ventral surface of the popliteus muscle and the posterior margin of the tibia.



Lateral meniscal repair



Tibial cut for TKA and exit point of the transtibial tunnel position of an on-lay block for PCL reconstruction.



High tibial osteotomy

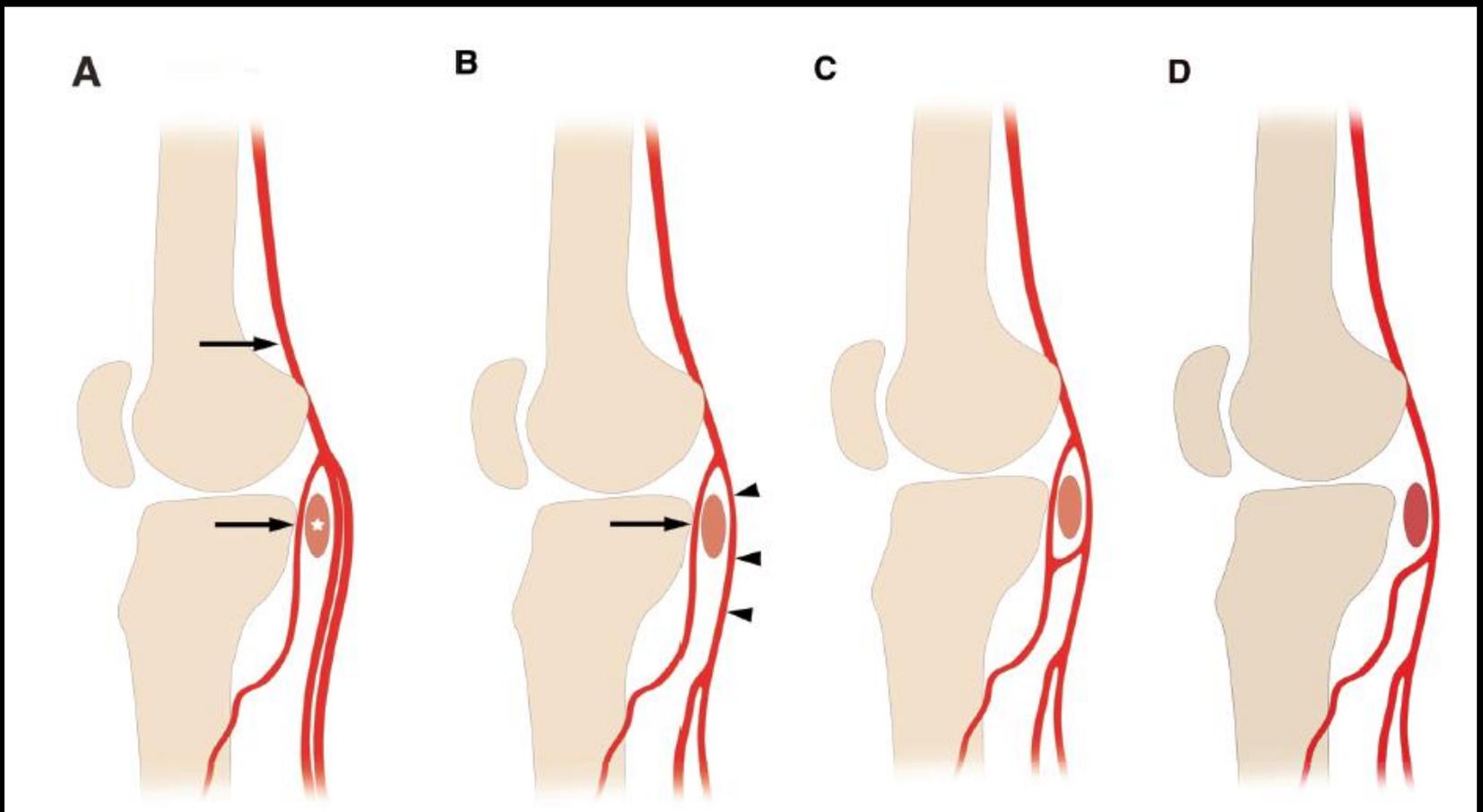


Level of placement of transtibial screws for tibial tuberosity osteotomy

Aberrant Anterior Tibial Artery

- ▣ Motivation for the research: regional experiences with vascular complications.
 - 3 patients had high tibial osteotomy with inadvertent lacerations of the aberrant anterior tibial artery
 - 1-compartment syndrome with necrosis
 - 1-below the knee amputation
 - 1-small aberrant anterior tibial artery was easily ligated without consequences.

- ▣ Prevalence: 2.1% (23 of the 1116 MRI knees of 1082 patients – 23 knees of 22 patients – 1 patient had aberrant artery bilaterally)



Embryological development of the anterior tibial artery. A, schematic illustrates the early embryologic stage of vascular development. The deep popliteal artery (arrows), a continuation of the axial artery, passes deep to the popliteus muscle (star). The tibialis posterior superficialis and peroneal posterior superficialis lie posterior to the popliteus muscle. B, the definitive part of the popliteal artery is formed in the intermediate stage of development after the primordial posterior tibial and peroneal arteries fuse forming the superficial popliteal artery (arrowheads). The deep popliteal artery remains deep to the popliteus muscle (arrow). Developmental arrest at this stage is manifest in the adult knee as the aberrant anterior tibial artery. C, the communicating branch forms between the superficial and deep popliteal arteries. D, the involution of the deep popliteal artery results in the normal, adult vascular anatomy.

Reference

- ▣ Rosemary J. Klecker,* MD, Carl S. Winalski,*† MD, Piran Aliabadi,‡ MD, and Tom Minas,§ MD, MS. **The Aberrant Anterior Tibial Artery Magnetic Resonance Appearance, Prevalence, and Surgical Implications.** The American Journal of Sports Medicine, Vol. 36, No. 4 2008

Next Case

History

- ▣ 22 yo woman presents with right leg pain and swelling

