

# 與大師對談

## 黃國書教授

2020-11

報告人:R2吳人中

- 依照臨床時序，請大師模擬一線放射科醫師；於未知診斷，或者有限度臨床線索之情形下，進行閱片及解讀。
- 鑑別診斷為主要，確定診斷為次要。
- 目的在於學習大師之影像判讀邏輯思考。
- 請大師給予本院影像品質建議。
- Protocols, techniques, etc.

**CASE 1**

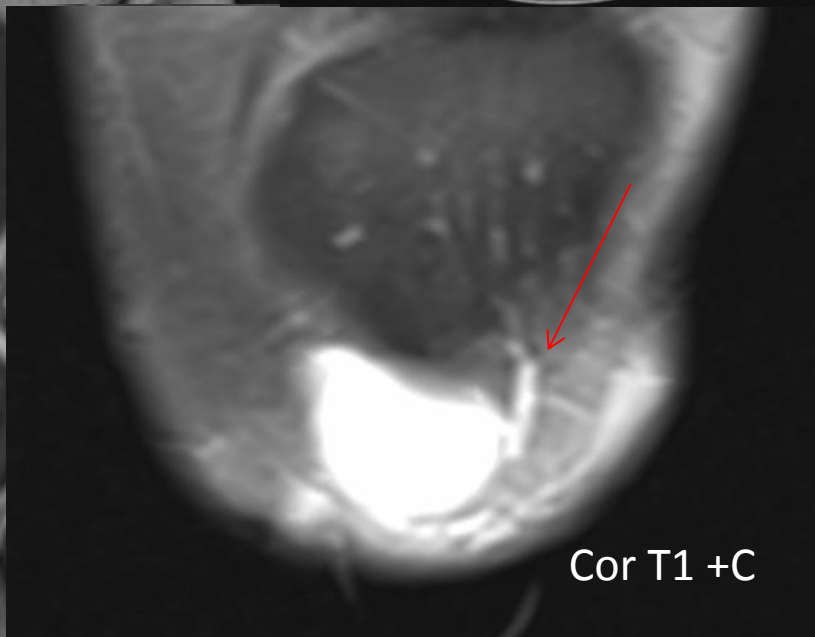
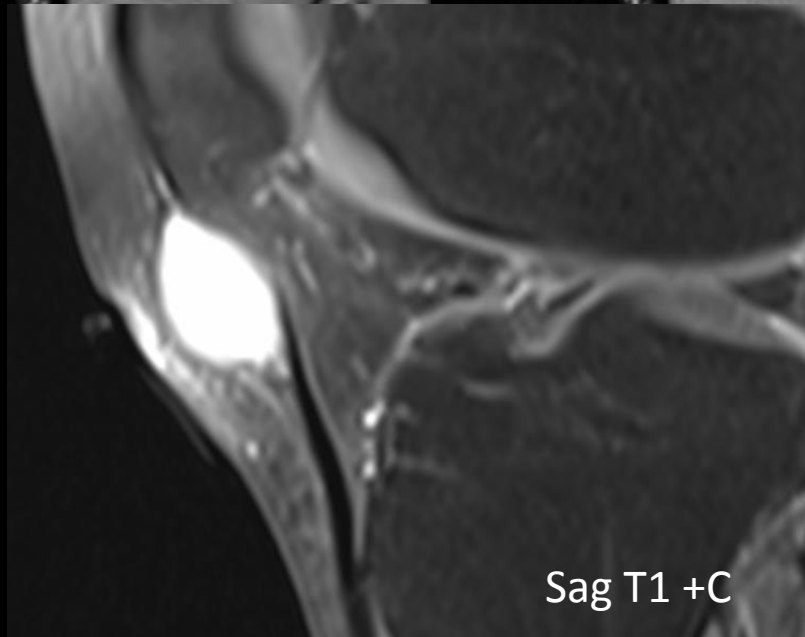
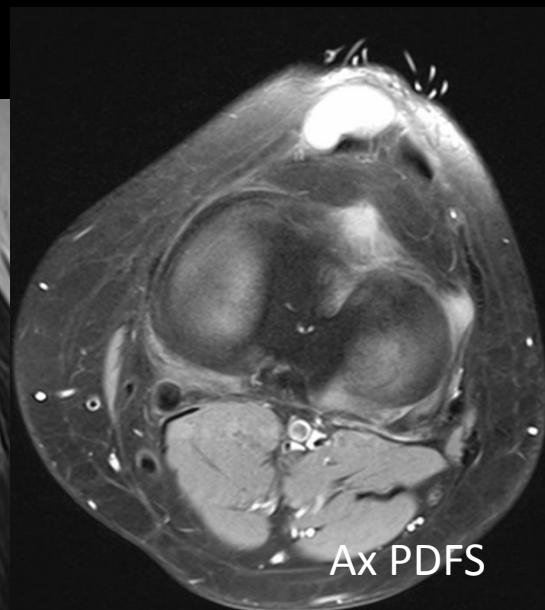
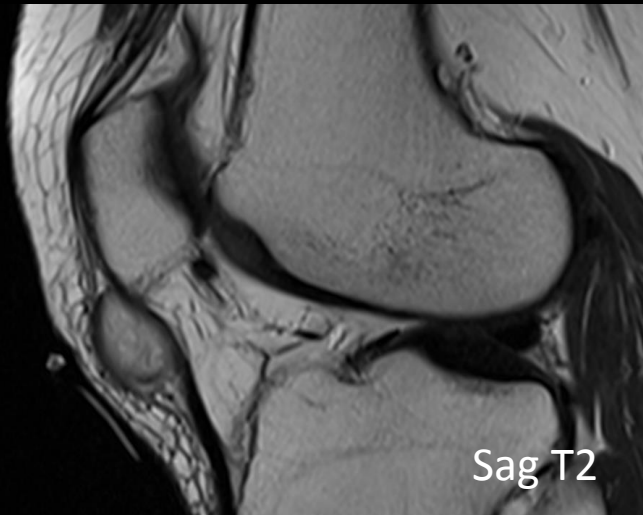
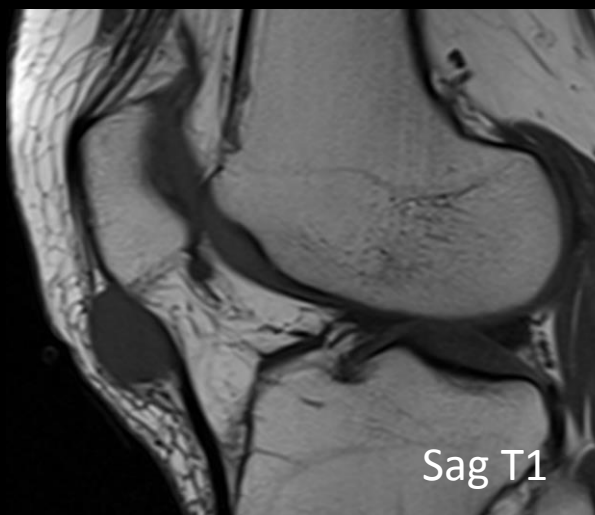
**35 Y/O WOMAN**

# Brief history

- 35 years old woman
- PHx: denied
- Chief complain:
  - Palpable mass in front of her left knee for half year

# Imaging studies

- 2020/10/05 L't knee AP & Lat
- 2020/10/13 L't knee MRI (+C)



## DDx:

- Angioleiomyoma
- Angiomatoid fibrous histiocyoma
- synovial sarcoma

# Pathology

- OP 11/04

病理診斷：Soft tissue, subcutis, knee region, left, excisional biopsy, angiomyoma  
Soft tissue, stated as margin, knee region, left, excision, no specific change

組織報告：The specimen submitted consists of two bottles labeled as (1) tumor and (2) soft tissue, respectively, fixed in formalin.

The bottle (1) contains one tissue fragment, measuring 2.3 x 1.8 x 0.6 cm in size. Grossly, it is a well-defined gray and elastic nodular tumor. On cut, it is homogeneously grayish. No hemorrhage or necrosis is noted.

The bottle (2) contains seven tissue fragments, measuring up to 1.1 x 0.3 x 0.3 cm in size. Grossly, they are gray and soft.

All for section and labeled as: A1-2: tumor B: soft tissue

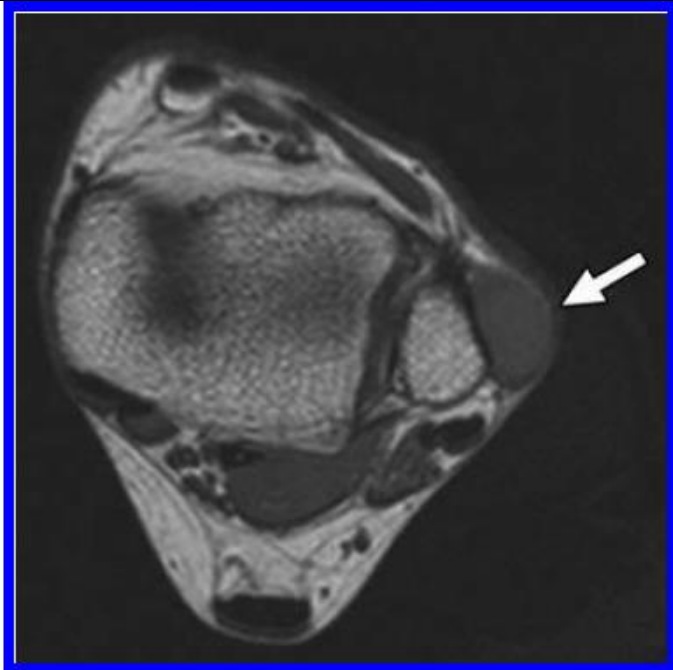
Microscopically, sections A1-2 show a picture of angiomyoma (angioleiomyoma) composed of proliferating smooth muscle cells arranged in fascicle and storiform pattern. The tumor is well defined and no necrosis or cellular atypia is noted. Section B reveals a picture of unremarkable fibroadipous or fibrovascular tissues and tendinous tissues.



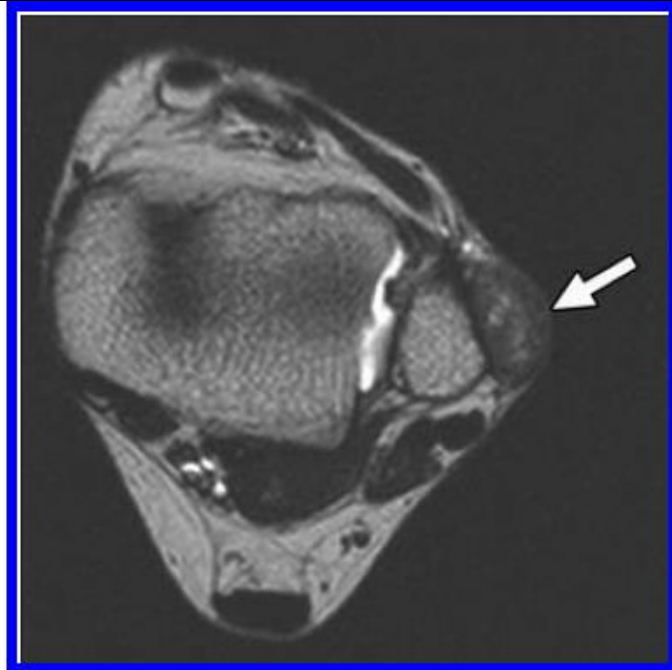
# Angioleiomyoma

- 5% among all soft tissue tumors
- Pain, Swelling
- MRI
  - T1W: Iso- to slightly high
  - T2W: High
  - +C: Homogeneous enhancement
  - Adjacent vascular structure

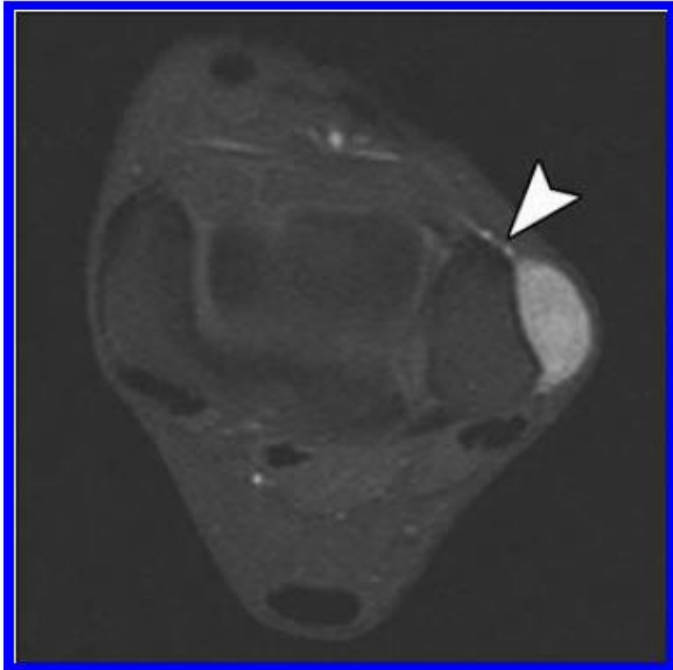
H.J. Yoo, J.A. Choi, J.H. Chung, et al., Angioleiomyoma in soft tissue of extremities: MRI findings, AJR Am. J. Roentgenol. 192 (6) (2009) W291–W294



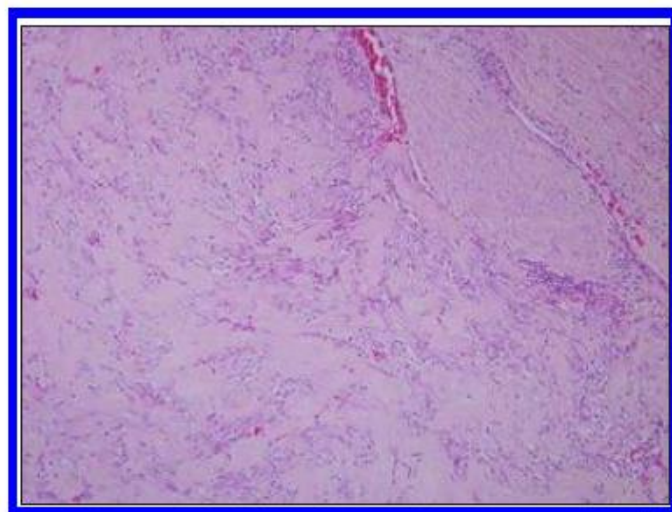
A



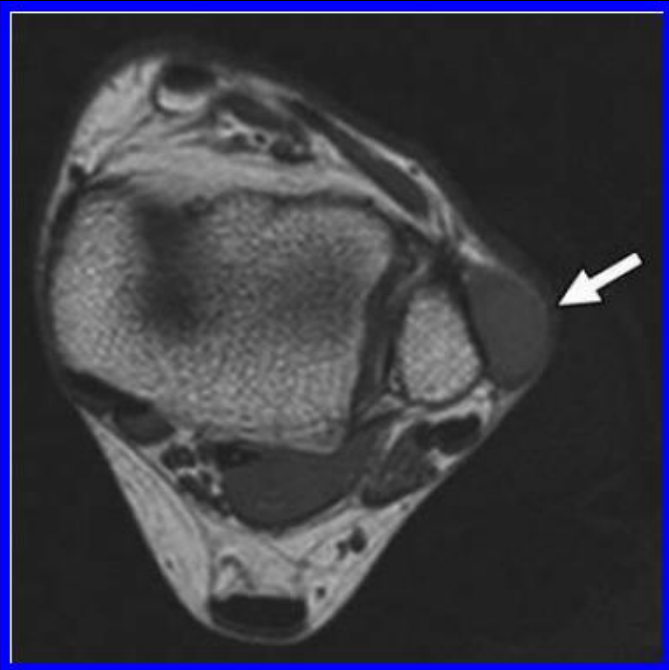
B



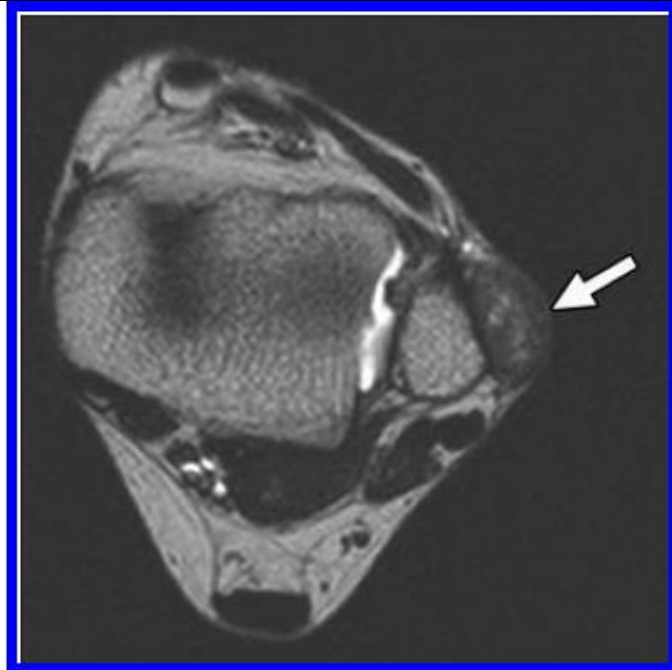
C



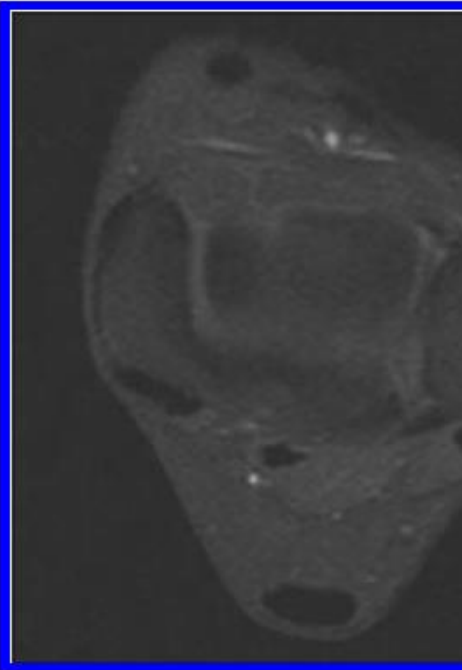
D



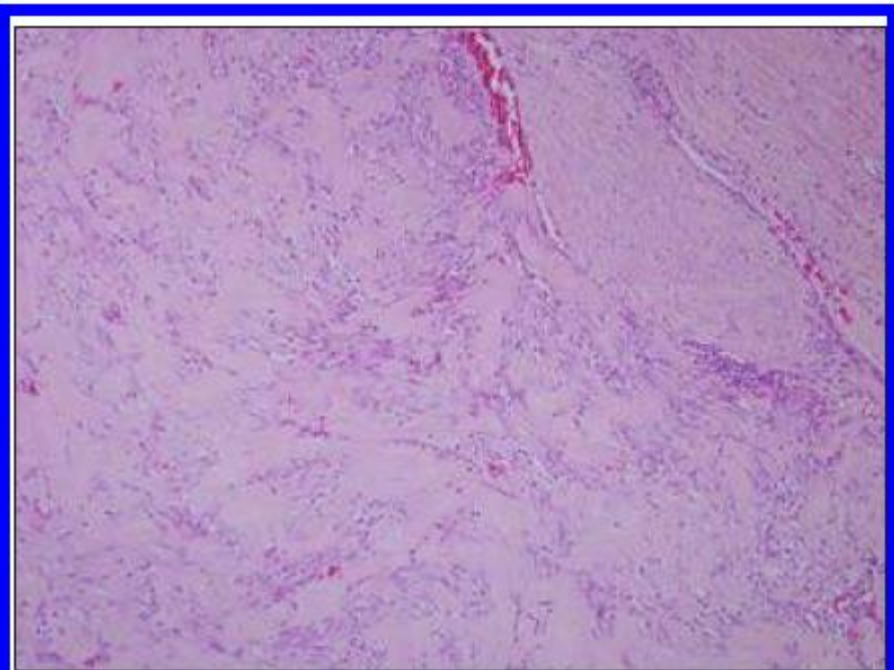
A



B



C



D

Differential diagnosis of lesions of the knee region with magnetic resonance imaging.

Lesion type	MRI				Suggestive features
	T1WI	T2WI	Gadolinium enhancement		
Angioleiomyoma	iso/hyper	hyper	++	homogeneous enhancement	Dural tail and hyperostosis
Lipoma	hyper	hyper	0	no	Saturates on fat-saturated sequences on T1WI
Giant cell tumors of tendon sheath	hypo	hypo	+	moderate enhancement	-
Neurofibroma	hypo	hyper	++	homogeneous enhancement	Hyperintense rim and central area of a low signal may be seen on T2WI
Hemangioma	hyper	hyper	+	moderate enhancement	STIR: iso or hyper
Chondromyxoid fibroma	hypo	iso/hyper	++	homogeneous enhancement	Peripheral nodular enhancement
Glomus tumor	iso	hyper	++	homogeneous enhancement	-
Osteoid osteoma	hypo	hypo	-	no	-
Pigmented villonodular synovitis	iso	iso/hyper	+	variable enhancement	Hyperintense areas may be present likely due to joint fluid or inflamed synovium
Synovial chondromatosis	iso	hyper	0	no	Areas of mineralization with focal areas of signal void

Hyper, hyperintense; Iso, isointense; Hypo, hypointense; MRI, magnetic resonance imaging; T1WI, T1-weighted images; T2WI, T2-weighted images.

N. Montemurroa, P. Perrinia, et al., Angioleiomyoma of the knee: An uncommon cause of leg pain. A systematic review of the literature, Interdisciplinary Neurosurgery

Differential diagnosis of lesions of the knee region with magnetic resonance imaging.

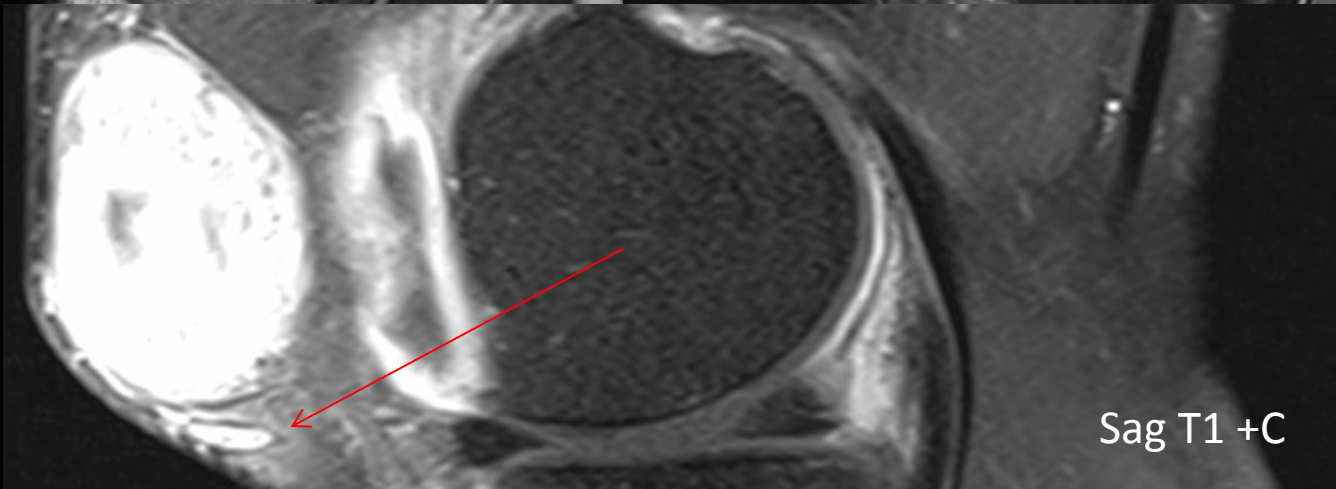
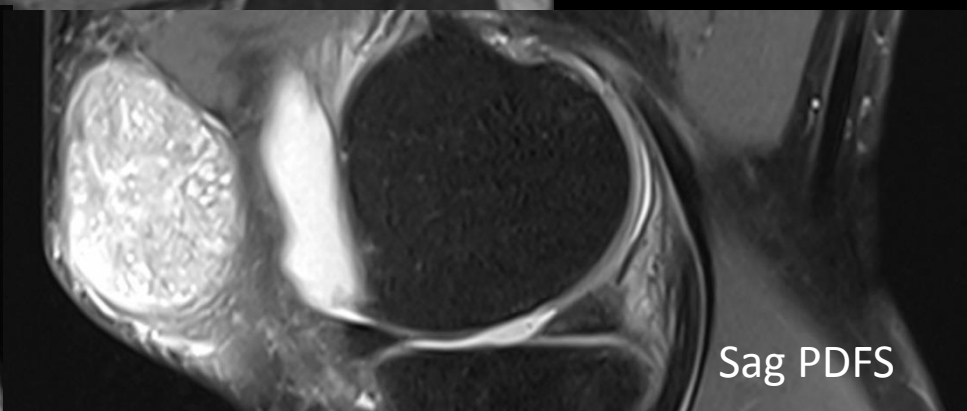
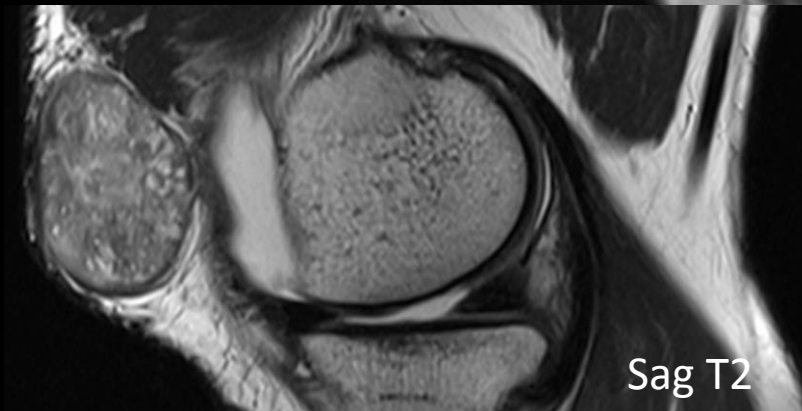
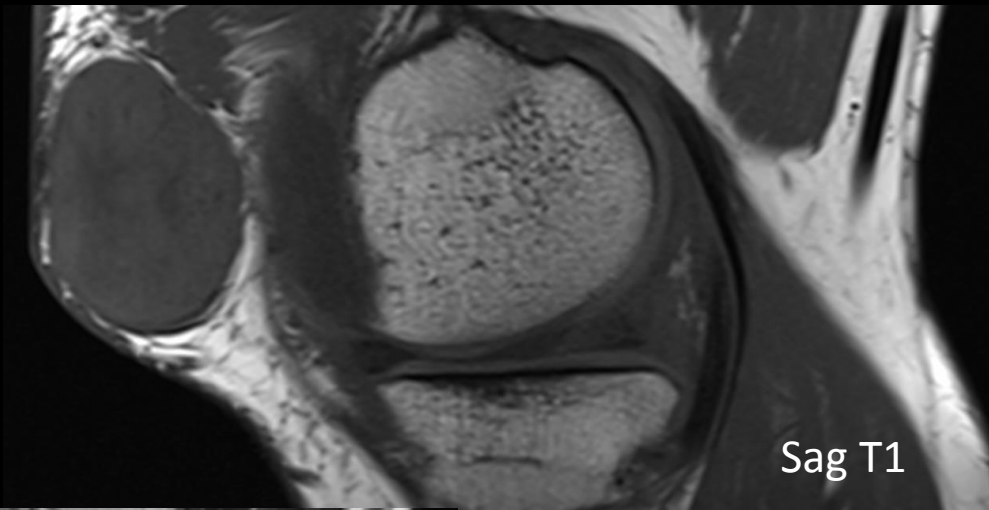
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# Another case

- 2020/09/09 L't knee AP & Lat and L't patella
- 2020/09/29 L't knee MRI (+C)
- 47 years old man
- PHx: denied
- Chief complain:
  - left knee pain with swelling





# Pathology

- OP 10/19

病理診斷：Soft tissue, knee area, left, excision, angioliomyoma

組織報告：The specimen submitted consists of one tissue fragment measuring 4.5 x 4.0 x 1.5 cm in size, fixed in formalin.

Grossly, it is a gray and soft to elastic mass. On cut, it showed a defined mass surrounded by fibrous capsule. The mass is homogeneous grayish-yellow without hemorrhagic, cystic or necrotic change.

All for section after serial section and labeled as A-4, and B1-9.

Microscopically, it shows a picture of an encapsulated angioliomyoma composed of numerous vessels that are present vary in size and have muscular walls of varying thickness in the mass. The surgical margin is free.