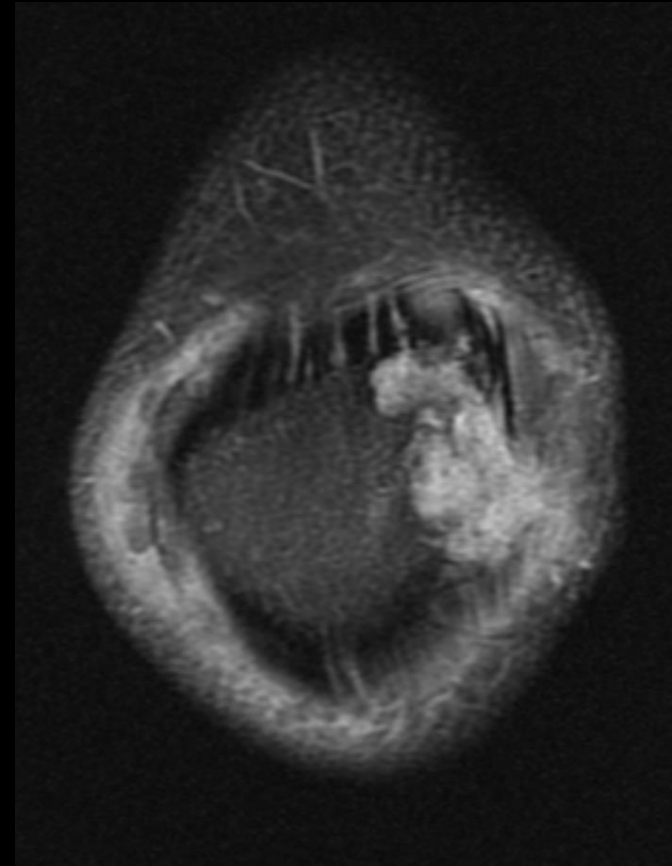
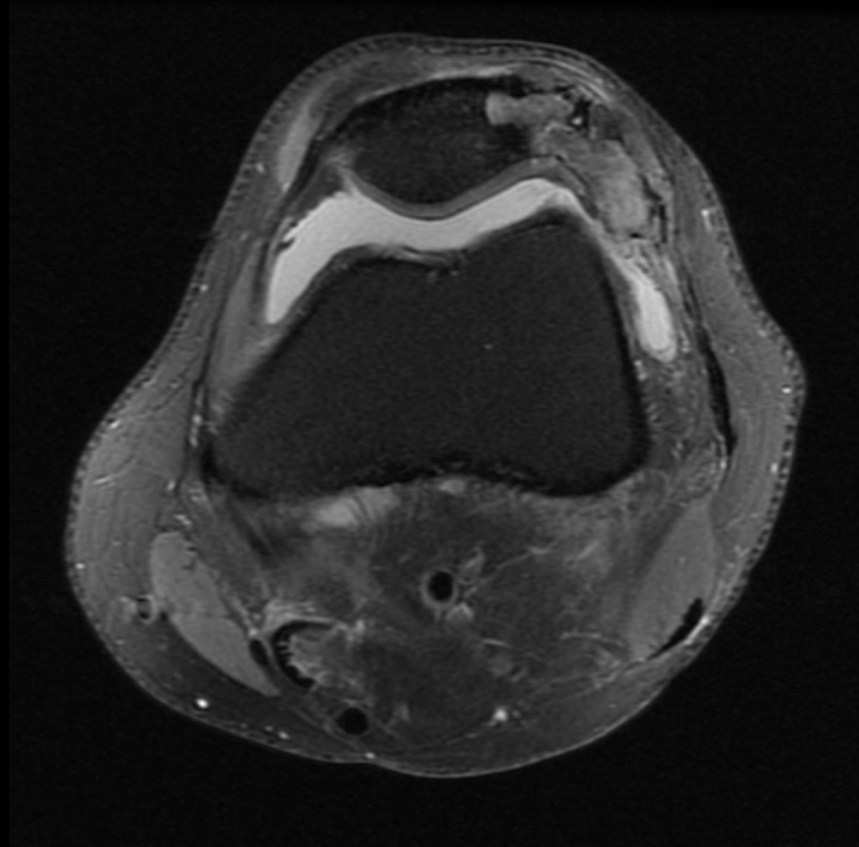


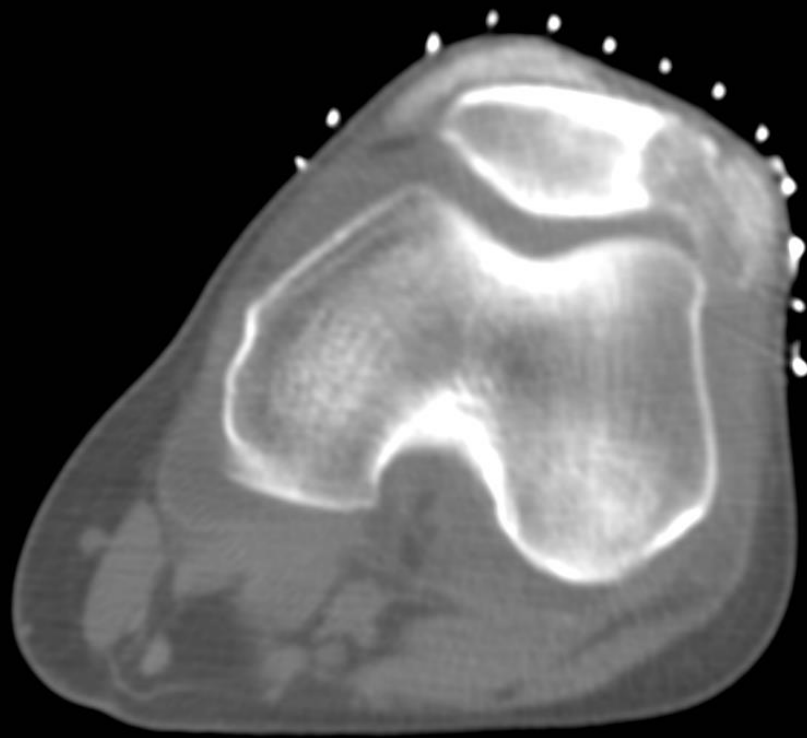
# Patient Presentation

- 33 yo m presented with h/o left knee pain and fever.
- Reported patellar fracture at age 13, treated non-operatively
- Mild deformity to lateral patella
- Radiographs were performed (not available)
- Reportedly showed patellar mass superolateral aspect of the patella
- MRI ordered

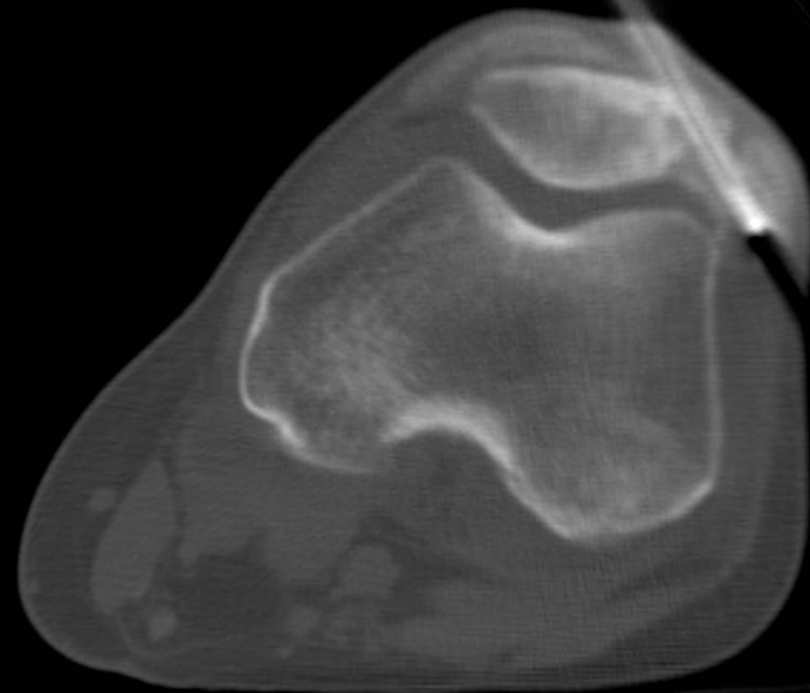


HOPAEDICS

A204



1



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# Patient Presentation

- Patient reminds provider of hx of gout
- Has a solitary kidney

- FINAL PATHOLOGIC DIAGNOSIS:

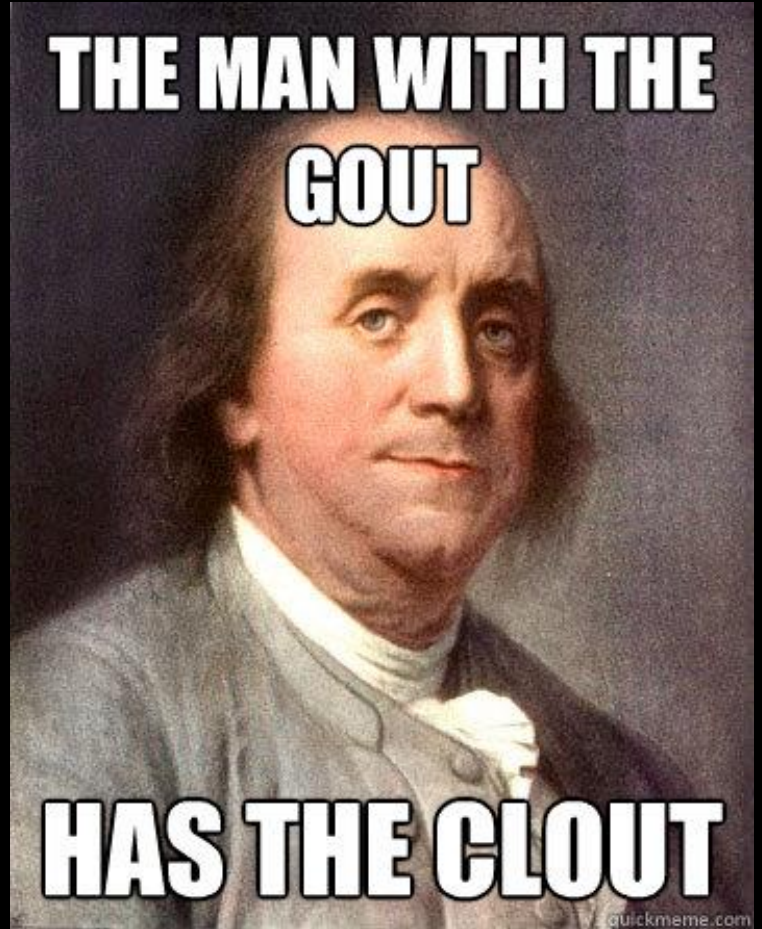
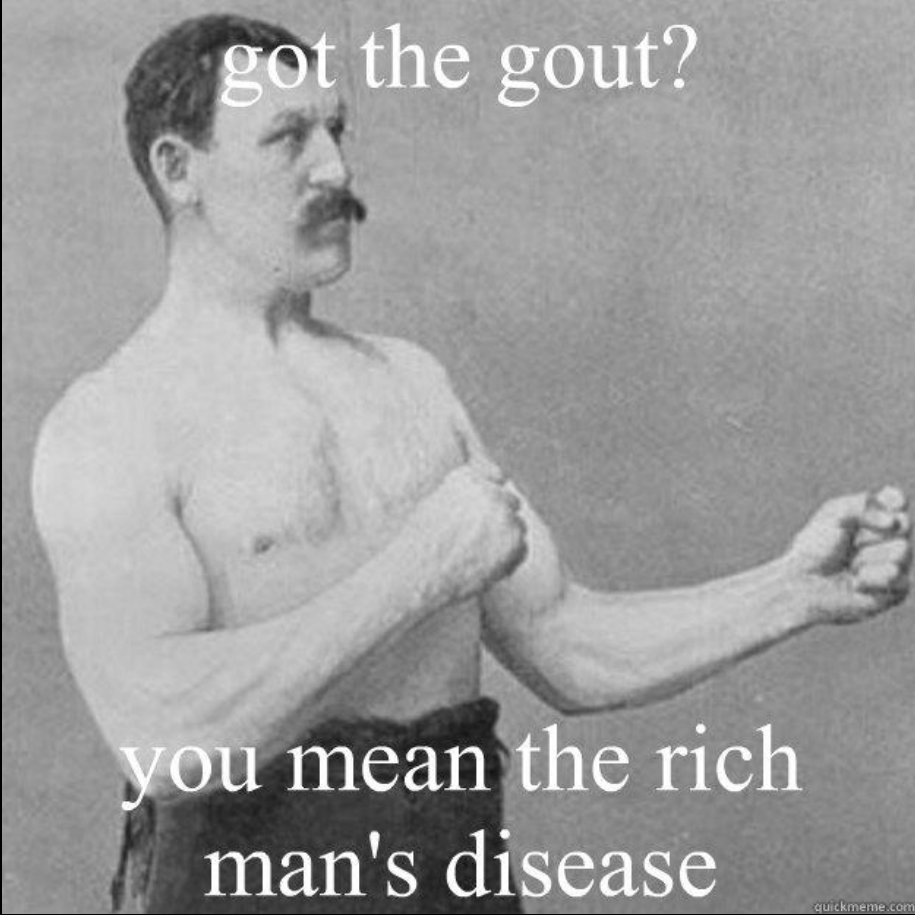
- Left knee bone, excision:

- -Tophaceous deposits consistent with **gout**.

- Comment:

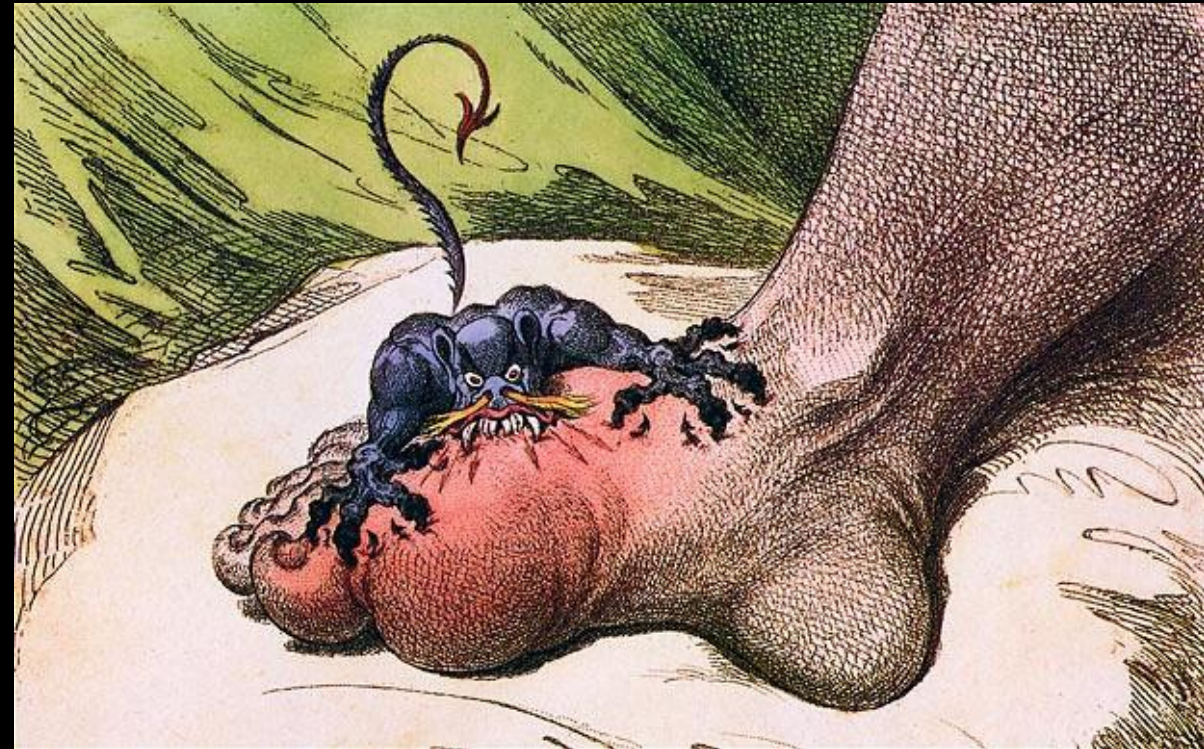
- Reviewed at the consensus surgical pathology QC conference of 02/09/2016

- (AT, MV, MH, AS, OF). There is no evidence of a neoplastic process.



# The Gout

- First reported description found in the Babylonian Talmud
- Peak incidence in 5<sup>th</sup> decade of life
- M>>F
- Foot>Ankle>Knee
- Tophi may be intraosseous
  - Pseudotumor of gout



James Gillray's 1799 cartoon 'The Gout'.

<http://www.telegraph.co.uk/news/health/9579075/Whats-so-funny-about-having-gout.html>

# Intraosseous Tophi

- Direct deposition of urate in the marrow



This is a 20 year old with end-stage renal disease; the lesion proved to be gout at biopsy.

<https://my.statdx.com/document/patellar-lytic-lesions/337b8c8c-c286-4a9f-8303-80ab6a1fbfb9?searchTerm=patellar%20lesion>





### Isolated or dominant lesions of the patella in gout: a report of seven patients

Michael P. Recht, M.D.<sup>1,2</sup>, Fernando Seragini, M.D.<sup>1</sup>, Josef Kramer, M.D.<sup>1,3</sup>, Murray K. Dalinka, M.D.<sup>4</sup>, Kristen Hurtgen, D.C.<sup>5</sup>, Donald Resnick, M.D.<sup>1</sup>

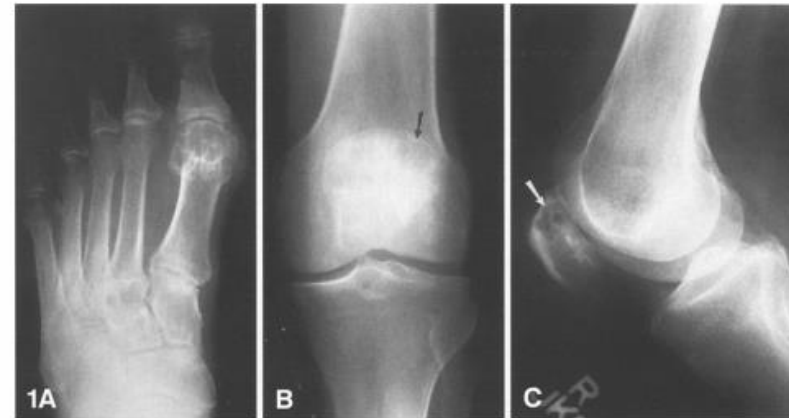
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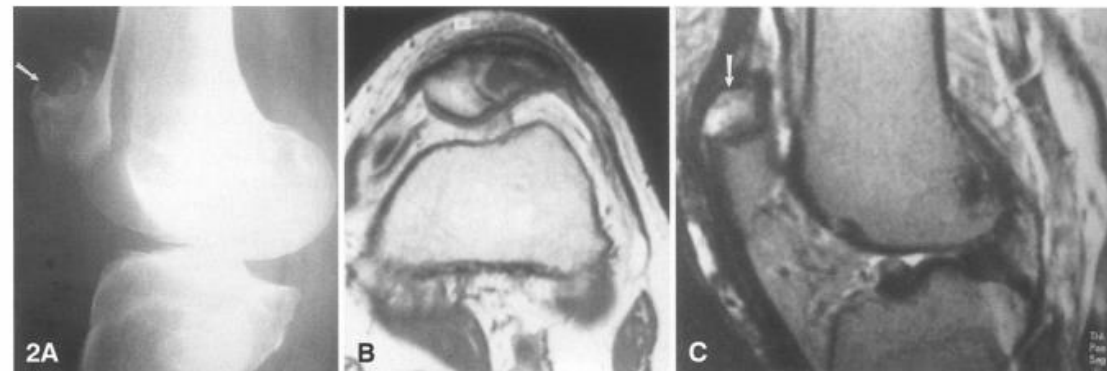
<sup>3</sup> MR-Institut, University of Vienna, Vienna, Austria

<sup>4</sup> Department of Radiology, Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania, USA

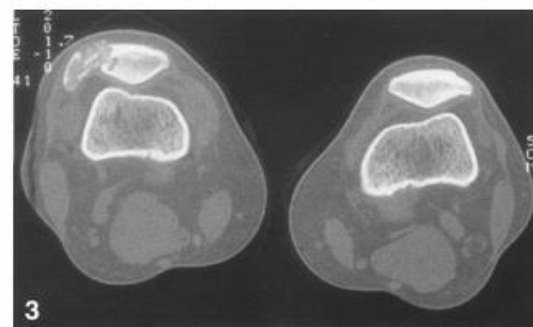
<sup>5</sup> National College of Chiropractic, Lombard, Illinois, USA



**Fig. 1A-C.** Patient 3. **A** Anteroposterior radiograph of the left foot demonstrating classic changes of gout about the first metatarsophalangeal and the second tarsometatarsal joints including well-defined juxta-articular erosions. **B, C** Anteroposterior and lateral views of the left knee demonstrating a geographic osteolytic lesion (*arrow*) involving the superolateral portion of the patella. No calcification is identified



**Fig. 2A-C.** Patient 7. **A** Lateral view demonstrating an osteolytic lesion of the superolateral portion of the patella. **B** T1-weighted (repetition time 600 ms, echo time 15 ms) transaxial magnetic resonance (MR) image after intravenous administration of Gd-DTPA demonstrating a hypointense lesion of the patella with minimal rim enhancement. **C** T2-weighted (repetition time 2500 ms, echo time 90 ms) sagittal image revealing a high-signal-intensity mass (*arrow*) in the superolateral portion of the patella



**Fig. 3.** Patient 1. Note the osteolytic lesion of the patella with a partially calcified peripatellar soft tissue mass. The lesion of the left patella was seen on a more cephalad section

# Gout of the patella

- Superolateral patella is a common location
- 11 out of 12 cases in one series

# Differential diagnosis – Patellar tumors

- Benign
  - Chondroblastoma - skeletally immature or young adult patient
  - GCT
  - Others
    - Infection
    - Subchondral cyst
    - Dorsal defect of the patella
      - Overlying cartilage is normal
    - Brown tumor
    - Amyloid deposition
- Malignant
  - Osteosarcoma/Lymphoma>Hemangioendothelioma
  - Mets - rare

# MRI of Gout

- Gouty tophus
  - Intermediate/Low homogeneous signal intensity
  - Variable signal on T2 & other fluid sensitive sequences
    - Mixed low and high signal
  - Enhances with contrast



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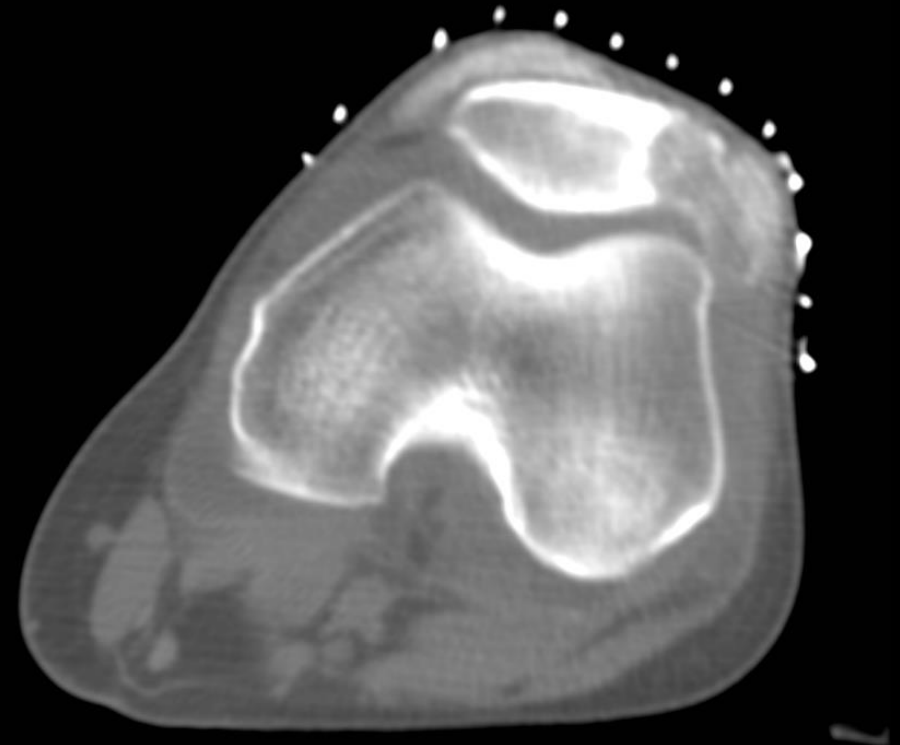
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In summary, an osteolytic lesion of the superolateral aspect of the patella, especially one that also has an associated peripatellar calcified soft tissue mass, should

alert one to the possible diagnosis of gout. Awareness of this diagnostic possibility may obviate the need for invasive procedures such as a percutaneous bone biopsy or surgery.



# References

1. Recht, Michael P., et al. "Isolated or dominant lesions of the patella in gout: a report of seven patients." *Skeletal radiology* 23.2 (1994): 113-116.
2. <https://my.statdx.com/document/gout/94d9a2fa-3558-4af4-a65c-f7b3de10175b?searchTerm=gout>
3. Singh, J., et al. "Tumour and tumour-like lesions of the patella—a multicentre experience." *European radiology* 19.3 (2009): 701-712.