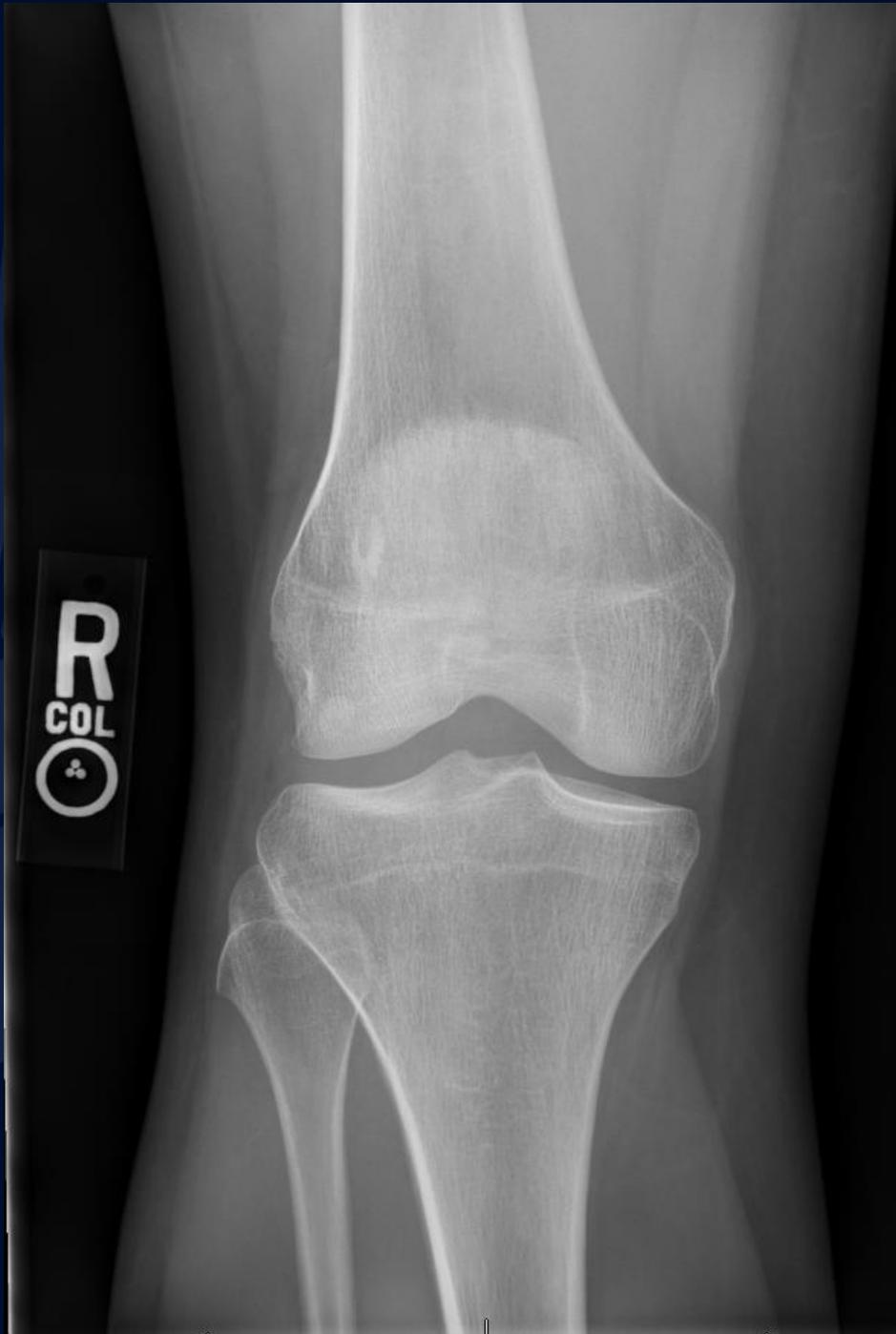


A large, stylized leaf graphic in a dark blue color, positioned on the left side of the slide, partially overlapping the text.

36 year-old female presents with right knee pain.

Ryan Joyce, MD
Rafael Pacheco, MD



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A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off it. The leaf's edge is serrated.

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Patella fracture

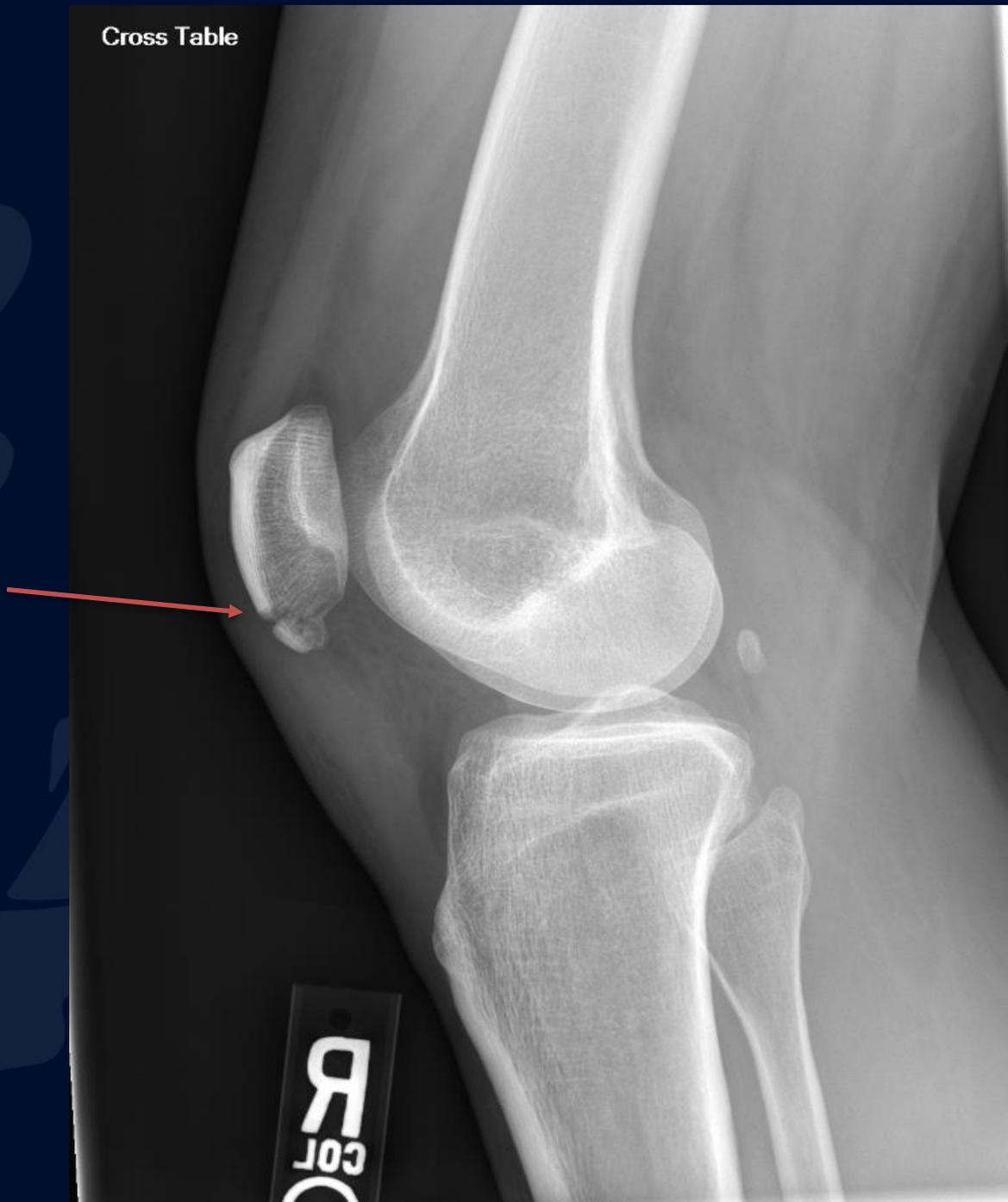


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Patella Fracture

- May occur after direct blow to patella, indirect injury, after ACL reconstruction, after total knee prosthesis, or in the setting of pathologic fracture.
- Patients present with pain, swelling, and decreased knee extension strength/tolerance.
- Point tenderness over patella

Patella Fracture

May fracture with the following patterns:

- Transverse (50-60%)
- Stellate (comminuted) (30-35%)
- Longitudinal (12-17%)
- Marginal avulsion
- Osteochondral injury
- Patellar sleeve injury (<16 years old)

Look for associated patella baja or patella alta.

Patella Fracture

- Lateral radiographs will not detect longitudinal or osteochondral fracture.
- Scrutinize AP view and perform sunrise view to identify longitudinal fractures.
- MR needed to evaluate for osteochondral injury and sometimes for patellar sleeve avulsion.
- CT for highly comminuted fractures.

Patella Fracture

Main differentials:

- Bipartite/multipartite patella
- Sinding-Larsen-Johansson syndrome

Surgical Indications:

- >2mm incongruity at articular surface
- >3mm separation of fracture fragments
- Disruption of extensor mechanism
- Open fracture (as with any fracture)

Patella Fracture

Conservative Treatment:

- With any fracture, an open fracture is a surgical emergency.
- Typically: extension splinting (4-6 weeks) and ice.
- Drainage of hemarthrosis for pain relief
- Intraarticular anesthetic for pain

References

1. Carpenter JE, Kasman R, Matthews LS (1994) Fractures of the patella. Instr Course Lect 43:97–108
2. Jarraya M, Diaz L, Arndt W, et al (2017) Imaging of patellar fractures. Insights Imaging 8:49-57.