36 year-old female presents with right knee pain.
Patella fracture
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
