

Acute Knee Trauma on the Sideline

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No Disclosures!

Athlete A History

- Sophomore Male
 - 15 y/o
 - Basketball player
 - Plays HS, and two AAU teams
 - Hx of Osgood-Schlatter Disease
 - Did not treat with HS AT but with family PT
 - No Brace Worn
 - Father was his coach
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The Injury MOI & Assessment


- HS Basketball Game
- Jumping for a rebound
- Collapsed to the ground
- Shock
- Deformity
- Delayed Swelling
- Norm Post Tib Pulse
- Norm Neurologic Exam
- LROM
- Pain



Athlete B History

- Senior Male
 - 17 y/o
 - Multi-sport athlete
 - Full-Ride for academics & to play at College DIII Football
 - No Hx of Knee Pain
 - Hx of Universal Cramping, specific to Calf
 - Tx for Cramping included electrolytes, stretching, and strengthening
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Athlete B MOI and Aftermath

- Football QB run
 - Fumbled behind
 - Pulled down backwards with anterior force at calf
 - Deformity
 - Immediate Swelling
 - Norm Post Tib Pulse
 - Norm Neurologic Exam
 - LROM
 - Pain
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Hudl Film of Athlete B's Injury

Thoughts?

Differential Diagnosis

- MCL or LCL
 - ACL or PCL
 - Meniscus Tear
 - Bone Contusion or Osteochondral Injury or Defect
 - Fibula Fx
 - Patella Fx
 - Patella Dislocation
 - Patella Tendon Rupture
 - Quad Tendon Rupture
 - Avulsion Fx
 - Intra-Articular Fx
 - Knee Dislocation
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Evaluation- Athlete A

- Assess Scene
- Shock
- Stabilize, call 911
- Crowd Control- Staff
- Check Pulse and Dermatomes
- Reduced
- Recheck Pulse and Dermatomes
- Sent to Hospital



Thoughts?

Differential Diagnosis

- Patella Fx
 - Patella Dislocation
 - Patella Tendon Rupture
 - Quad Tendon Rupture
 - Avulsion Fx
 - Intra-Articular Fx
 - Knee Dislocation
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Post-Surgical X-Rays: Type III Salter Harris/Avulsion Fx



Evaluation Athlete B

- Assess Scene
- Stabilize, call 911
- Crowd Control, Staff
- Spine/Neck Surgeon
- Check Pulse and Myotomes
- Reduced
- Recheck Pulse and Myotomes
- Sent to Hospital



X-ray of Before and 2 Post-Surgery (Athlete B): Type IV Salter Harris/Avulsion Fx



Outcomes for Both Athletes

Athlete A:

- Surgical Case that night
- Very Difficult recovery
 - Mental and Physical
- Treated for Breathing Disorder
- Recovery: 10mo- >1yr

Athlete B:

- Specialist called
- Swelling
- 6 days- before surgery
- Recovery: <4 months

What we see and what we do

- Instincts
 - Assess the scene
 - Stabilize and call 911
 - If you reduce, check pulse!
 - Keep calm and keep your patient calm
 - Determine if there is an additional way to provide care
 - Bracing
 - Utilize your staff, coaches, or visiting ATs
 - Calmly inform parents/
coaches
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Can I improve?

Of Course!

**Thank
you!**

