

Delayed Onset Bursitis of the Medial Collateral Ligament Bursa in an 18 year old Collegiate Football Player: A Case Study

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Background Information:

- A bursa is a fluid filled sack which are found in areas of high friction.
- Bursae allow for smooth, pain free motion.
- Injuries to the bursa cause the fluid from the bursa leaks out into the surrounding area.
- Swelling is due to the dilation of capillaries, arterioles, and the liquid excreting from the bursa.
- The most common mechanism of injury is due to trauma.
- Presentation of swelling due to bursitis injuries commonly occurs within the first few hours.
- Normal MCL bursitis presents with inflammation, pain, and pitting edema over the medial aspect of the knee after a traumatic event.

Case Presentation:

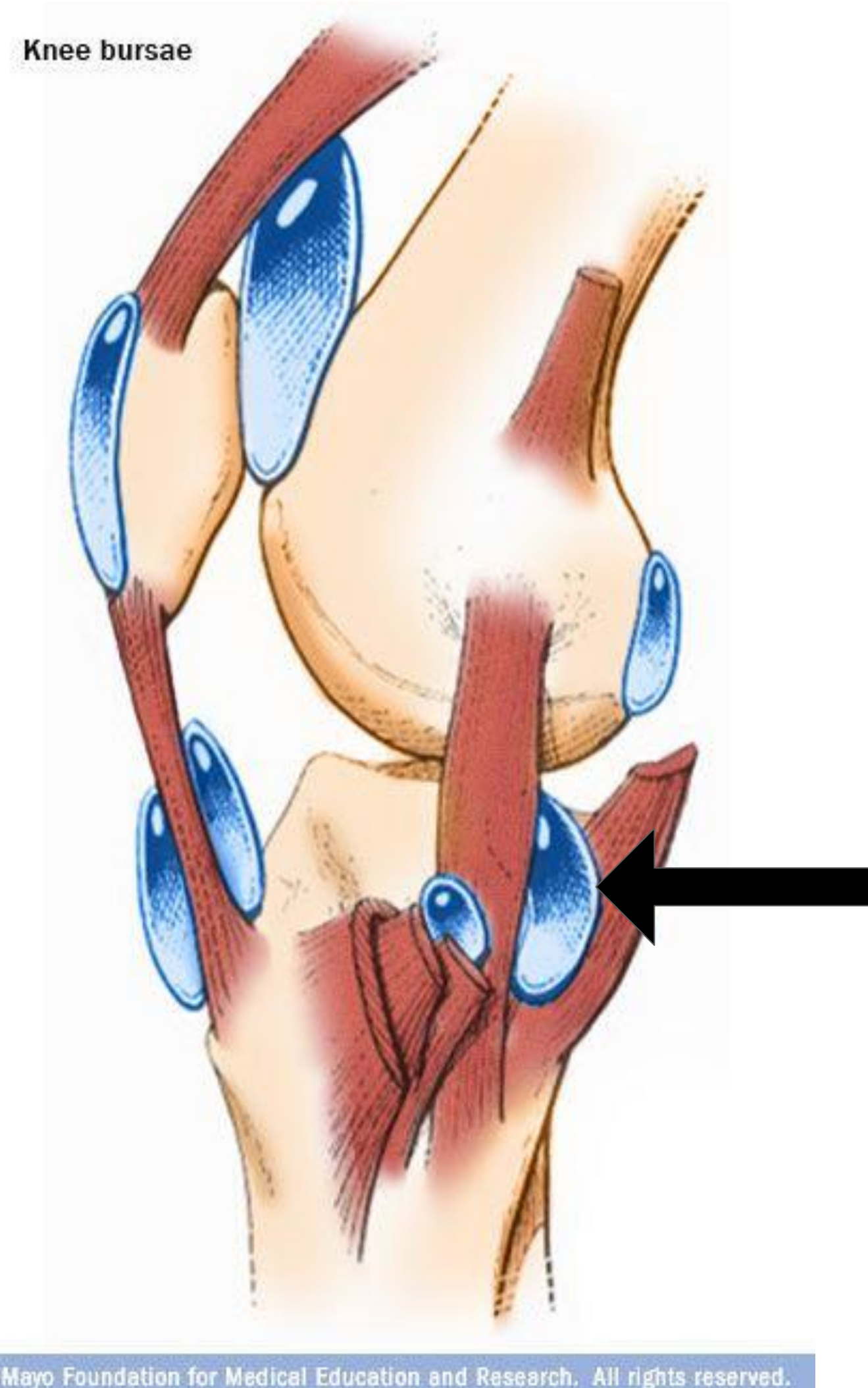
- An 18-year-old football offensive lineman came into the athletic training room complaining of pain in the medial aspect of the left knee, just proximal to the femoral condyles
- Patient stated no prior history of injury to the affected limb.
- After a full evaluation the patient was discharged and returned 15 minutes later presenting with acute onset swelling in the affected area (See Figure 1)
- Patient reported pain and pressure in the affected area
 - NPS 6/10 without pressure
 - NPS 9.5/10 with pressure/palpation
- The patient reported blunt trauma to the area 48 hours prior



Figure 1: Inflamed bursa at time of injury
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Figure 2: Inflamed bursa 1 1/2 weeks post injury
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Figure 4: Image Retrieved from <https://bonesmart.org/forum/threads/bakers-cysts-and-other-knee-bursae.10510/>

Interventions:

- Elevated GameReady was utilized upon initial evaluation.
- Patient was sent home with ace wrap and instructed to sleep with the affected leg elevated along with continued use of an ace wrap.
- GameReady was administered for five days after initial injury.
- Five days after initial evaluation the patient began therapeutic exercises
- Patient did quad sets and was treated conservatively over the course of a six week period
- Figures 2 & 3 are pictures of the affected area after a period of rehabilitation

Conclusion:

- The case is highly unique as the presence of delayed onset bursitis is absent or inconclusive in the literature.
- Even with the direct trauma mechanism, the delayed onset nature of the injury does not correspond with typical MCL bursitis pathologies
- MCL bursitis occurs in approximately 0.2 percent of the people who sustain medial knee injuries
- MCL bursitis is rarely seen in younger patient populations.
- The patient being 18 years of age and reporting a mechanism which occurred two days prior to the presentation of swelling makes the case presented highly unique.
- Player returned to play 6 weeks after initial evaluation.

Clinical Bottom Line:

- Bursitis is an acute injury with swelling occurring quickly after initial injury.
- The recognition and diagnosis of bursitis is highly important in the clinical setting because bursitis is a common injury an Athletic Trainer will encounter.
- While the presence of a delayed onset MCL bursitis is extremely rare, the pathology should be considered in any case which presents with knee inflammation consistent with bursitis.



Figure 3: Patient after three weeks of rehabilitation
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