

Septic Bursitis: A Case Study

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Background: A 20 y.o. male Division III wrestler with a history of prepatellar bursitis presented with signs and symptoms consistent with prepatellar bursitis, complaining of anterior knee pain, prepatellar swelling, stiffness, and limited range of motion. However, over the course of 4 days the athlete began to present with atypical symptoms and was unresponsive to treatment; developing pain with weight bearing and active range of motion. Due to this atypical presentation, he was subsequently referred to the Ithaca College team physician where he received both x-ray and ultrasound to rule out structural damage. **Differential Diagnosis:** Prepatellar bursitis, patellar contusion, infection. **Treatment:** Initial treatment consisted of HIVAMAT, ice, compression, and mild range of motion exercises to decrease pain and increase range of motion. The x-ray and ultrasound results were found to be consistent with prepatellar bursitis however, he did demonstrate trace redness and very mild warmth. The athlete displayed no other signs of infection or systemic illness. The physician prescribed antibiotics in case of infection and tylenol, as needed, as an analgesic. HIVAMAT treatment was then contraindicated due to concern for infection, and was thus discontinued. The patient's condition significantly improved within the next 48 hours. **Uniqueness:** The patient's initial presentation was consistent with the original diagnosis of prepatellar bursitis. However, the atypical development of more systemic symptoms lead to further need for re-evaluation in order to rule out serious infection. **Conclusions:** When suspecting prepatellar bursitis, it is important to consider both septic and nonseptic bursitis in the differential diagnosis. This is especially true when the patient has a history of repeated trauma to the bursa. Due to the similar presentation between these two conditions, one must consider septic bursitis even if the patient does not present with a lesion or fever. In cases where septic bursitis is suspected, a referral for blood testing should be made because early recognition of septic bursitis is crucial for decreasing recovery time. In all cases of bursitis, the condition of the knee should be closely monitored for any changes in progression that would indicate the development of an infection. **Relevant Evidence:** Bursitis is fairly common in wrestlers due to the customary and repetitive contact mechanisms to the knee and elbows. The physical nature of wrestling exposes participating athletes to multiple strains of the *staphylococcus* bacteria and other viral and fungal pathogens that can infiltrate weakened immune and integumentary systems. This becomes even more likely if the patient has a history of trauma to the bursa. This is especially true with septic bursitis due to a weakening of the bursal wall occurs with acute "traumatic" bursitis. This weakening depletes the bursa's ability to avoid further traumatic injuries as well as microbial attack, such as the bacterias which cause septic bursitis. It is common for septic bursitis to occur with or without the presence of an open lesion near the site of infection. In combination with a wrestler's weakened immune system, septic bursitis becomes much more concerning. Septic bursitis must be diagnosed and treated rapidly to prevent spread of the infection.

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