TRAUMATIC REOCCURRING PREPATELLAR BURSITIS IN AN 18 YEAR OLD COLLEGIATE WRESTLER

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Background: In August 2012, an 18 year old collegiate male wrestler reported to the athletic training room complaining of right knee swelling at his right patella following preseason conditioning and wrestling drills. Evaluation revealed subcutaneous fluid collection located over prepatellar bursa increased by 2 cm as compared to contralateral knee. Area was not point tender but increased tissue temperature was noted. AROM and PROM were equal B/L and within normal limits. MMT revealed decreased strength of 4/5 for vastus group and rectus femoris. Special tests resulted (-) Posterior Sag, (-) Anterior and Posterior Lachman, (-) Anterior and Posterior Drawer, (-) Thessely, (-) McMurray, (-) Patellar Apprehension, (-) Ballotable Patella, and (+) Sweep. Patient was neurovascuarly intact and demonstrated no obvious signs of infection. Differential Diagnosis: Knee joint pathology, prepatellar bursitis, Morel-Lavallée Lesion.

Treatment: After evaluation the patient received cryocompression treatments, was instructed to wear a compression wrap daily, and was withheld from participation. He was referred to an orthopedic physician 4 weeks post injury for further evaluation. Physician performed first aspiration September 14th which ruled out infection, and patient was instructed to continue conservative treatment consisting of ice, elevation, and compression. Patient was allowed to continue to lift and run as symptoms permitted. Subcutaneous fluid collection returned without specific mechanism. On October 2nd patient followed up with physician to receive a second aspiration and the addition of a Cortisone injection to decrease subcutaneous fluid and instructed to abstain from activity. Two days post second aspiration prepatellar subcutaneous fluid returned without mechanism and was 6 cm larger than contralateral side. On October 23rd, patient received third aspiration with another Cortisone injection and two days later, girth measurements returned to preaspiration levels even without further activity. At this time physician ordered a MRI to rule out any internal derangement. MRI resulted in 10 cm by 8 cm prepatellar fluid collection, with no significant injury present. Physician prescribed conservative treatment ruling out further aspiration and bursectomy secondary to increased risk of infection and return of signs and symptoms. A second physician was sought and agreed with conservative treatment and was cleared to continue non-contact wrestling activities. Patient acknowledged risk of further injury and returned to limited wrestling with protective padding. Patient accidently took a blow to his right knee while wrestling on his own. Two days post event, most swelling decreased and the rest of the swelling decreased over time. Patient currently is able to wrestle as tolerated with a pad and compression wrap. He was able to return to play with full strength, no pain, and no increase in subcutaneous fluid collection. Uniqueness: Usually after aspiration and cortisone injection, subcutaneous fluid collection is reduced and controlled as long as there are no recurrent episodes. In this case, aspiration occurred three times, and subcutaneous fluid collection still reoccurred without re-injury. This is especially unique since the athlete was given cortisone to prevent chronic inflammation. Doxycycline sclerodesis was considered as a treatment, but ruled out due to lack of evidence and research. Also, in order for swelling to decrease, in this case another injury occurred. Since the bursitis decreased after direct trauma, it is thought that either a re-rupture of the bursa occurred, or the healing process was reinitiated in order to resolve this injury. Conclusion: This case study resulted in frustration for athletic trainers, physicians, and athlete since the bursitis was not easily controlled and had no mechanism. Continual aspiration was not recommended secondary to increased risk of infection. Surgical excision was not recommended secondary to possibility of reoccurring edema despite surgical intervention. Ultimately return to play with re-injury lead to resolution of this bursitis.