Abstracts

DIAGNOSIS OF SYNOVIAL CHONDROMATOSIS IN A 22 YEAR OLD SOFTBALL PLAYER: A CASE STUDY

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Background Information: This case presented a 22 year old Division III college softball player who began to experience medial knee pain towards the end of 2011 season in April. Her symptoms included pain within the knee joint, locking and giving way, and effusion. Thessaly and McMurray Tests were (-). An MRI was recommended if symptoms did not resolve. The athlete believed that with rest the pain would go away, and planned to limit her activity May-September of 2011. The patient’s pain did not subside and an MRI imaging study performed in July 2011 was unremarkable. The patient participated in fall ball (2011) but still had significant pain. A second MRI imaging was ordered.

Differential Diagnoses: Medial meniscus tear, medial synovial plica and synovial chondromatosis.

Treatment: The patient was treated using rest and ice until the physician had made a definitive diagnosis. After imaging the physician determined, that there was evidence suggesting a meniscal cyst on the anterior and posterior portions of the meniscus. The physician gave the athlete the option to have surgery to remove the cysts or play through the pain. The athlete opted to have the surgery and was removed from play for approximately a month. The patient was allowed gradual return to play but continued to experience, pain, locking, giving way and had an antalgic gait. The planned surgery was arthroscopic removal of meniscal cysts and menisectomy. Upon entering the knee joint, the surgeon found small white egg like growths floating around the entire joint. As the surgeon removed the growths more continued to appear, the surgery was modified to include the removal of these growths and the growths were sent to histology for examination, but the surgeon believed them to be synovial chondromatosis. The surgeon was also able to determine that the “meniscal cysts” that were visible on the MRI were actually the host cells from which the growths were coming. The surgeon removed all of the growths, the host cells and performed the menisectomy before the surgery ended.

Uniqueness: Synovial chondromatosis is rare, but when seen, is commonly found in adults aged 33-45 and more often in males than females (Jesalpura, Chung, Patnaik, Choi, Kim & Nha, 2010). The patient presented in this case study is a 22 year old female. Synovial chondromatosis can occur in patients of any age group, however it is most commonly diagnosed in the third to fifth decades of life; and is found to be twice as common in males as it is in females (Chou, PH., Huang, TF., Lin, SC., Chen, YK., & Chen, TH, 2007).

Conclusions: Although synovial chondromatosis commonly occurs in middle aged and adult males, as clinicians we must not rule out this disease in our younger and female athletes. Also, because this disease commonly mimics medial meniscus tears, when ordering imaging for meniscus tears, histology reports should be ordered as well as a means to rule out synovial chondromatosis. This case stresses the importance of keeping an open mind about the diagnosis prior to confirmation through physician exam and imaging. Word Count: 531