TACSM Abstract – Clinical Teaching

ACL, Meniscus, And Hyaline Cartilage Repair Using Osteochondral Autologous Transplantation in a Collegiate Football Player.

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ABSTRACT

BACKGROUND A 21 year old collegiate football player fell to injury of the left knee during football practice. The patient presented with localized symptoms around the posterior knee and stated that they heard multiple pops and a grinding sensation, but was not able to pinpoint the exact location of pain. Upon further inspection, there was a + Lachman's test, +Anterior drawer test, +Mcmurray's test, and + Apley's compression test. The patient was then referred to the hospital for diagnostic imaging, where is was concluded that the athlete suffered from ACL, Meniscus, and articular cartilage tears. **DIFFERENTIAL DIAGNOSIS** ACL tear, meniscal pathology, bone contusion, osteochondritis dissecans, medial synovial plica irritation. **TREATMENT** Diagnostic imaging revealed an ACL tear which was opted to be replaced with an patella tendon autograft, The patient's meniscus then sutured together after an autograft of hyaline cartilage was transplanted off of a non-weight bearing portion of the femur. **UNIQUENESS** Although all three of the injuries are fairly common to see in the athletic setting, the prevalence of having all three injuries at once is fairly uncommon. To add on the uniqueness of this case, the hyaline cartilage repair was performed in a fashion that has been recently proven to be more effective than traditional microfracture surgery while still being able to be performed in the same surgical procedure. The OATs procedure involves using small plugs of articular cartilage transplanted into the area in hopes of a faster recovery. **CONCLUSION** While there is about a 36-38% prevalence of articular cartilage injuries in collegiate athletic settings, there are an abundance of techniques that have been used to treat them. In recent years, the osteochondral autologous transplantation has been researched and proven to provide more complete surface defect coverage and increased healing times in patients that underwent this option for surgery and should be the preferred method for articular cartilage deformity repair.