

Cyclops Lesion In a Collegiate Men’s Lacrosse Player: A Type 4 Clinical CASE Study

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Background: In late July 2023, a 20-year-old male division I lacrosse player reported to the Athletic Training clinic with pain, swelling, and an inability to fully extend his left knee. Evaluation revealed an extension deficit of 5 – 10° during active range of motion (ROM). The patient had previously undergone a double-bundle procedure to repair a torn anterior cruciate ligament (ACL) in his left knee in November 2022. Following this surgery, the patient completed a standard but conservative ACLR rehabilitation program as prescribed by the sports medicine team but switched to a light strength training regimen on his own during summer break. Upon return to campus, the patient reported he had experienced lingering pain, swelling, and lack of full knee motion. Notably, the patient had a previous ACL injury in his contralateral knee and underwent single-bundle ACLR prior to beginning his collegiate career. Following this first surgery, the patient was discovered to have a cyclops lesion on the patellar tendon graft and underwent operative excision to remove the lesion. Given his present symptoms, extension deficit, and previous history, the patient was given a platelet-rich plasma (PRP) injection for his symptoms that paused his strength training program. As symptoms lingered, the patient was referred to the team physician who prescribed diagnostic imaging. MRI findings revealed the presence of a cyclops lesion on the anterolateral aspect of the tibial insertion site of the ACL graft. **Differential Diagnosis:** Radial tear of the meniscus, chronic injury of the distal ACL, excessive joint effusion, cyclops lesion. **Treatment:** Prior to the onset of postoperative symptoms following ACLR rehabilitation for his left knee, the patient performed little to no rehabilitation or exercise. Upon discovery of the cyclops lesion, the sports medicine team determined that surgery was required and delayed further rehabilitation until operative treatment was performed. In September 2023, the patient underwent left knee arthroscopy for debridement of the surrounding structures and excision of the cyclops lesion. Following this surgery, the patient completed a rehabilitation program that mimicked that of an accelerated ACLR rehabilitation plan and returned to play within two months of the cyclops lesion removal. **Uniqueness:** Cyclops lesions refer to fibrous nodules composed of granulated tissue that often present in front of a graft following ACLR. The novelty of this present case is specific to the rarity of this condition, the presence of symptoms, and the athlete’s prior injury history (cyclops lesion following ACLR of right knee). Prior reports indicate that cyclops lesions present in only 1 – 10% of all ACLRs, and only 2 – 10% of these cases are symptomatic. The patient presented with a loss of knee extension and pain with activity (e.g., running), findings consistent with prior research of symptomatic cases. Roughly 90% of cyclops lesion cases are diagnosed within six months following ACLR. In this case, the patient presented with increased symptoms and an extension deficit roughly eight months following ACLR. Lastly, and related to the ACLR surgical approach, the incidence of cyclops lesions has been found to be greater following double-bundle graft reconstruction in comparison to single-bundle and hamstring graft ACLR. The patient reported having undergone a single-bundle ACLR for his prior ACL injury (pre-college), yet he underwent a double-bundle procedure for his right knee. Notably, the patient was diagnosed with cyclops lesions following both procedures. **Conclusion:** Although the incidence of cyclops lesions is rare and few are symptomatic, it can be a cause of pain and restricted motion weeks to months following ACLR. In cases where a patient presents with increasing pain and an extension deficit several months following ACLR, the athletic trainer should consider the potential involvement of a cyclops lesion.