A Modified Technique To Treat Infected Tibial Tunnel Post ACL Reconstruction: A Case Report

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INTRODUCTION:

The incidence of post-operative infection after single bundle ACL reconstruction is 0.84%¹. We present a case of infected tibial tunnel with osteomyelitis seven-months post ACL reconstruction.

CASE REPORT:

A 19-year-old man presented with pain, swelling and discharge over the proximal left leg for the past 1 months after his left single bundle ACL reconstruction with quadruple hamstring graft done seven months ago. The left proximal leg was swollen with a sinus and pus discharge near the surgical scar. The knee radiograph was unremarkable. His MRI revealed loosening of the interference screw and enhancing bone marrow edema around the tibial tunnel. The CT scan showed osteomyelitis of the proximal tibia.

He underwent two-stage surgery. Firstly, arthroscopic debridement and wash-out of the left knee, wound debridement of left proximal tibia and insertion of an antibiotic cement spacer into the tibial tunnel was done. His tibial graft was destroyed and it extra-articular infection. removed the interference screw and packed it with antibiotic cement. The cement spacer was molded in cylindrical shape and supplemented with a K-wire for easy removal in the subsequent operation. In second-stage surgery, we removed the spacer and replaced with synthetic bone graft. His ACL graft was successfully preserved. After 3 months of follow-up, he is asymptomatic with good functional outcome.

DISCUSSIONS:

Extra-articular infection of tibial tunnel with osteomyelitis of the proximal tibial post ACL reconstruction is a rare case and only few cases are reported in the literature². The current guidelines suggest early arthroscopic debridement, graft retention, antibiotic therapy and complete removal of artificial implant. However, two-stage surgery as showed in our case is also a good treatment option with good surgical outcome.

CONCLUSION:

Early detection and treatment with proper treatment protocol should be followed and preferably by the treating surgeon to reduce the risk of late stage complications secondary to the infection.

REFERENCES:

- 1) Mishra, P., A. Lal, M. Mohindra, N. Mehta, D. Joshi and D. Chaudhary 2018, Incidence, management and outcome assessment of post operative infection following single bundle and double bundle acl reconstruction, *J Clin Orthop Trauma*, 9, (2): 167-171.
- 2) Gobbi, A., G. Karnatzikos, S. Chaurasia, M. Abhishek, E. Bulgherhoni and J. Lane 2016, Postoperative Infection After Anterior Cruciate Ligament Reconstruction, *Sports Health*, 8, (2): 187-189.