

**Arthroscopic Management of Avulsion Fractures
of the Tibial Attachment of the Posterior
Cruciate Ligament**

By

Mohamed Abdel-Azeem Hassan Wahsh

A thesis submitted in partial fulfillment

for

the requirements for the

MD degree

In

Orthopaedic Surgery and Traumatology

Faculty of Medicine

Cairo University

2021

**Arthroscopic Management of Avulsion Fractures
of the Tibial Attachment of the Posterior
Cruciate Ligament**

By

Mohamed Abdel-Azeem Hassan Wahsh

Supervised By

Khaled Fawzy M Abdel-Kader

**Professor of Orthopaedic Surgery
Faculty of Medicine, Cairo University**

Kamal Mohamed Samy Abdel-Meguid

**Professor and Chairman of Orthopaedic Surgery Department
Faculty Of Medicine, Fayoum University**

Ahmed Fouad Mohamed Seif El-Din

**Lecturer of Orthopaedic Surgery
Faculty of Medicine, Cairo University**

Faculty of Medicine

Cairo University

2021

Summary

The posterior cruciate ligament is a key structure for maintaining the stability of the knee joint. The PCL is the primary restraint to posterior tibial translation³. Injuries of the PCL are relatively uncommon. Surgical reduction and fixation is feasible either through open or arthroscopic approaches. The tibial attachment of the PCL is present in an area which is difficult to access. Posterior approaches are commonly used. However, these approaches are difficult and invasive with risk of injury to the popliteal fossa neurovascular bundle^{4,6}, and division of the femoral insertion of the gastrocnemius⁶.

Recently, arthroscopic approaches have evolved with several reports providing satisfactory outcomes. Arthroscopic treatment of PCL tibial avulsion fractures has many advantages. The arthroscope is a safe and reliable method which allows for direct visualization of the knee and the fracture, minimizing the risk of injury to nerves and blood vessels¹. Moreover, it allows haemarthrosis wash-out, removal of interposed soft tissues, and diagnosis of concomitant intra-articular pathologies⁴. Furthermore, the minimally invasive nature of arthroscopy allows for early postoperative recovery and rehabilitation¹.

However, the arthroscopic technique is demanding and requires advanced skills. Early results are promising to encourage surgeons to make this novel technique.

The aim of the study is to assess the early outcomes of the arthroscopic management of avulsion fractures of the tibial attachment of the PCL.

Keywords: PCL avulsion, tibial bony avulsion, arthroscopy.