

***Combined Injuries of the Posterior Cruciate Ligament
and the Postero-Lateral Corner of the knee, Diagnosis
& Modalities of Treatment***

Essay

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Abstract

The consequences of an isolated posterior cruciate ligament (PCL) injury are poorly understood. PCL reconstruction has been advocated to restore knee kinematics to normal, which decreases the perceived risk of early degenerative joint disease.

The structures within the posterolateral corner of the knee have recently been “re-discovered” providing a very important role in maintaining the stability of the knee. For acute combined PCL & PLC, most authors advocate early repair of both structures in an acute combined injury; however, the cruciate reconstruction can be performed after the acute repair of the PLC and when the capsule has healed.

Key words

Ligament - Postero- Diagnosis

*To my father and mother, whom without
their assistance I wouldn't be I'm,*

To them I dedicate this work...

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List of Abbreviations

Abbreviation	Description
AC	Arcuate Complex
ACL	Anterior Cruciate Ligament
AL	Anterolateral
ITB	Iliotibial Band
LCL	Lateral Collateral Ligament
MCL	Medial Collateral Ligament
MRI	Magnetic Resonance Imaging
N/mm	Newton per millimeter
PCL	Posterior Cruciate Ligament
PFL	Popliteo-femoral Ligament
PLC	Posterolateral Corner
PM	Posteromedial
PMC	Posteromedial Capsule
POL	Posterior Oblique Ligament
ROM	Range of Motion
US	Ultrasound

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Introduction

Introduction

The posterior cruciate ligament (PCL) is the strongest of the cruciate ligaments. Reported injuries to the PCL are much less frequent than those of the anterior cruciate ligament (ACL). The primary function of the PCL is to resist posterior tibial translation with the knee in 90° of flexion. Information regarding the natural history, biomechanics, anatomy and function of the PCL has grown recently but is still considered minuscule compared to the present understanding of the ACL. Management controversy persists despite the recent advances and understanding of surgical and nonsurgical treatment of the PCL injury.

In recent years, the posterolateral corner of the knee has received increasing attention in terms of the elucidation of its anatomy and assessment of its biomechanical role in the stabilization of the knee joint. It has been found that previously unrecognized injuries to the posterolateral complex contribute greatly to knee instability and are a potential factor in the failure of cruciate ligament reconstruction.

Injury of the posterior cruciate ligament (PCL) is uncommon in contact sports, with only 2% of otherwise fit athletes being found to have an isolated injury of the PCL during routine medical examination. The PCL was found to be injured in 7% of acute sporting knee ligament injuries and in half of these, there were additional ligamentous injuries. The incidence of damage to other structures, in association with the PCL, increases with energy of injury.

Injuries to the postero-lateral corner of the knee are relatively rare, accounting for less than 2% of acute knee injuries. Despite this, knowledge of injuries to the postero-lateral corner of the knee has

expanded considerably over the last 10 years. Anatomical structures and function are now more clearly defined, and treatment options have expanded accordingly. Although recent advances for diagnosis are now available, Postero-lateral rotatory instability is still frequently missed and left untreated. Presentation can be isolated or more commonly as a part of a multi-ligamentous injury.

Chapter 1

