# **European School of Prolotherapy**

## Educational Update



# <u>Knee Prolotherapy</u> <u>Understanding</u>



#### **Posterolateral Corner of the Knee**

Posterolateral corner of the knee was noted both for its complex anatomy and diagnostic challenges

Treatment of injuries to the posterolateral corner of the knee has historically been challenging. Factors contributing to the difficulty in treating these injuries included <u>poorly understood anatomy</u>, ill-defined diagnostic techniques, and reconstructive procedures that were neither anatomically based nor biomechanically validated with reports of recurrent laxity and failures. Further, these often overlooked injuries commonly occur with cruciate ligament injuries, which frequently lead to cruciate ligament graft deficiencies and significant patient morbidity. Important, therefore is a rigorous research approach to better understand and manage these difficult injuries. Also reevaluating the qualitative and quantitative anatomy, investigating the clinically relevant biomechanics, and developing improved diagnostic techniques. Prolotherapy when used correctly in regeneration injection treatment can show clinical changes in the biomechanics of the PLC and also show validation of the anatomic-based reconstruction .

Biomechanical studies indicated that the <u>popliteus tendon</u> was an important primary static stabilizer against knee external rotation.

The **popliteofibular ligament (PFL)**, previously called the <u>arcuate ligament</u>, clarified its course and attachments. It was found that the PFL coursed from the musculotendinous junction of the popliteus in a distolateral direction at 38° from the vertical, and attached to the posteromedial aspect of the fibular styloid



## **DIAGNOSIS OF POSTEROLATERAL KNEE INJURIES**

It has long been recognized that <u>diagnosis of posterolateral knee injuries</u> requires a synthesis of multiple clinical examination tests.<u>However</u>, it is also recognized that many posterolateral injuries are either not recognized or misdiagnosed, necessitating a detailed assessment of clinical testing to improve diagnostic accuracy. Thus, it was demonstrated that in posterolateral knee injury, the varus stress radiographs are important for objective assessment showing laxity.

#### CONCLUSIONS

Proper treatment of grade 3 posterolateral knee injuries requires a comprehensive understanding of the anatomy and clinically relevant biomechanics to synthesize the various clinical exams utilized to diagnose these injuries.



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