Morphometric Features of Tibial Attachment of Posterior Cruciate Ligament on Thiel Embalmed Cadavers

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Abstract

Background: The posterior cruciate ligament (PCL) is variable in terms of its origin, course and termination. The tibial insertion of the posterior cruciate ligament is variable and may have implications for accurate tunnel placement during reconstruction surgery.

Methods: This study investigates this attachment in the Thiel embalmed cadaver of a 71-year-old female European Caucasian. The inferior attachment of the ligament was then examined histologically.

Results: The attachment was macroscopically and microscopically examined, and found to terminate by forming a fan shape and blending with the periosteum. Histological examination confirmed that fibers extended up to 25 mm inferior to the ligament’s usual insertion point.

Conclusions: These fibers are anatomically important; as they may be an additional supporting factor, assist with stabilization of the knee joint, and further inform surgical approaches to PCL reconstruction surgery.