Case 16298

Hypermobile Discoid Lateral Meniscus

Published on 05.12.2018

DOI: 10.1594/EURORAD/CASE.16298
ISSN: 1563-4086
Section: Musculoskeletal system
Area of Interest: Musculoskeletal joint
Procedure: Education
Imaging Technique: MR
Special Focus: Trauma Case Type: Clinical Cases
Authors: Ahmed Hazem Darwish, Scott McDonald.
Patient: 45 years, female

Clinical History:

45 years old female presented with knee pain, with a clinical suspicion of patellar tendinosis and lateral meniscal tear.

Imaging Findings:

MRI of the knee showed a discoid lateral meniscus. The anteroinferior and posterosuperior popliteomeniscal fascicles are disrupted. There is increased and abnormal separation between the periphery of the posterior horn of the lateral meniscus and the popliteus tendon.

Discussion:

Background: The attachments of the lateral meniscus are less extensive than those of the medial meniscus, predisposing to meniscal instability. Whilst the root attachments and meniscotibial (coronary) ligaments serve as important static stabilizers, they are augmented by the popliteomeniscal fascicles, which may play an important role in dynamic stabilization of the lateral meniscus during knee flexion [1, 3]. Disruption of these fascicles is implicated in the pathophysiological of lateral meniscal hypermobility [1].

Clinical Perspective: The clinical presentation is usually that of lateral compartment pain in a young patient, sometimes with associated mechanical symptoms. Conventional clinical tests for meniscal pathology may be negative, although the performance of a figure-4 test may elicit pain [1]. Lateral meniscal hypermobility can be diagnosed on arthroscopy by demonstrating anterior displacement of the meniscus with use of the arthroscopic probe [1].

Imaging Perspective: Lateral meniscal hypermobility is seldom diagnosed on MRI examinations of the knee [1], although the literature suggests that in surgically confirmed cases, careful retrospective review of reportedly normal examinations often identifies abnormalities of the popliteomeniscal fascicles [1]. A high index of suspicion is required for prospective diagnosis, with careful evaluation of the lateral meniscal attachments in those with an appropriate clinical presentation.

Outcome: A published case series suggests improved clinical outcomes from popliteomeniscal fascicle repair and lateral meniscal stabilization [2].

Teaching Points: The popliteomeniscal fascicles should be carefully evaluated in younger patients with lateral pain
and/or mechanical symptoms.

Written informed patient consent for publication has been obtained.

**Differential Diagnosis List:** Hypermobile discoid lateral meniscus., Peripheral tear of the lateral meniscus., Wrisberg variant discoid lateral meniscus.

**Final Diagnosis:** Hypermobile discoid lateral meniscus.

**References:**


Description: Sagital PD Fat Sat MRI of the knee demonstrating anterior displacement of the lateral meniscus and disruption of the popliteomeniscal fassicles. Origin: Department of radiology, Addenbrooks hospital, Cambridge, United Kingdom.
Description: Coronal PD Fat Sat MRI of the knee showing discoid lateral meniscus with peripheral separation of the meniscus. Origin: Department of radiology, Addenbrooks hospital, Cambridge, United Kingdom.