International Journal of
Clinical & Medical Images

ISSN : 2376-0249
Vol 8 • Iss 3 • 1000742 March, 2021

Clinical-Medical Image

Double Posterior Cruciate Ligament: Signs in Bucket-Handle Tear in the Medial Meniscus

Yehouenou Tessi Romeo Thierry*, Asaad El Bakkari, Khadija Ben El-Hosni, Ittimade Nassar, and Nabil Moatassim Billah

Central Radiology Unit, University Hospital Center Ibn Sina, Mohamed V University , Rabat, Morocco

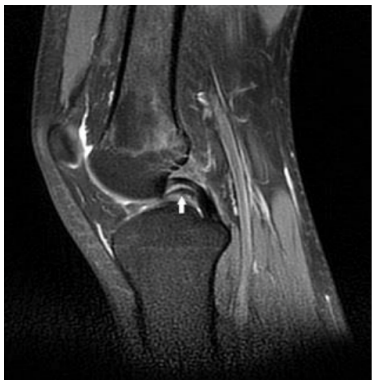

Figure 1: MRI of Knee Sagittal section in proton density sequence with fat saturation showing an arciform band in hypo signal parallel to the posterior cruciate ligament in relation with a double posterior cruciate ligament sign (white arrow).

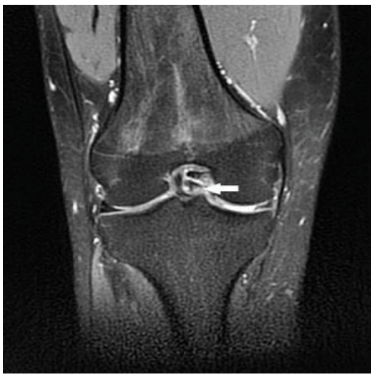

Figure 2: MRI Knee Coronal slice in proton density sequence with fat saturation visualizing the meniscal fragment displaced in the intercondylar space in (White arrow).

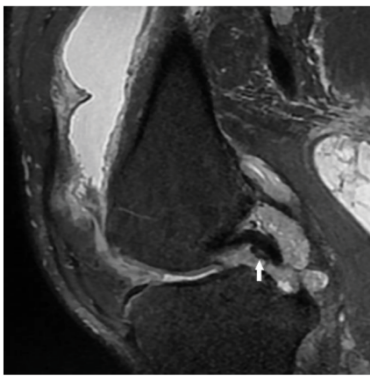

Figure 3: Sagittal section in proton density sequence with fat saturation showing the anterior femoral meniscus ligament or Humphrey's ligament (white arrow)

Clinical Image

The "double posterior cruciate ligament" sign is highly specific (98-100%) and low sensitivity of a bucket-handle tear of the medial meniscus with integrity of the anterior cruciate ligament that will prevent further lateral migration of the dislocated fragment parallel to the posterior cruciate ligament (PCL). Bucket-handle meniscal tear is characterized by the displacement of a released meniscal fragment that may move wholly or partially into the notch or anterior portion of the joint or into the peripheral joint while the peripheral fragment remains attached to the capsule. It results from a vertical longitudinal or oblique lesion extending along the major meniscal axis. This lesion, most often of traumatic origin, leads to recurrent blockages in knee flexion, sometimes associated with effusions. It usually affects young adults. On MRI sagittal slices, the dislocated fragment appears as an arciform hyposignal band parallel to the normal PCL, giving the appearance of a "double PCL" (Figure 1). The dislocated meniscal fragment in the intercondylar fossa is visible in front of and below the PCL (Figure 2). Analysis of the adjacent sections shows the continuity of this hypointense band with the meniscus, both anteriorly and posteriorly (Figure 1). This sign indicates a lesion of the medial meniscus because at the lateral meniscus, and if the anterior cruciate ligament not ruptured, prevents the migration of the fragment under the PCL. The sign of double PCL may be associated with a "mega anterior horn" appearance due to the meniscal tongue abutting the anterior horn (>6 mm). It should be noted that this aspect can mimic the anterior meniscofemoral ligament or Humphrey's ligament (Figure 3). It is important to specify the elements useful for possible reparability (meniscal residue<4 mm, absence of meniscal residue or discrete anomaly of the dislocated fragment. The therapeutic attitude towards meniscal lesions has evolved considerably since the recognition of the arthrogenic consequences of meniscectomy. Meniscal conservation is advocated when the lesion is stable or reducible (bucket handle).

Keywords: Meniscus; Bucket handle tear; Posterior cruciate ligament; Knee-MRI

Declaration of Interests

The authors declare that they have no competing interests.

***Corresponding author:** Yehouenou Tessi Romeo Thierry, Central Radiology Unit, University Hospital Center Ibn Sina, Mohamed V University, Rabat, Morocco, Tel: + 886-7-3121101; E-mail: nactessi@yahoo.fr*

***Citation:** Thierry YTR, Bakkari AE, Hosni KBE, Nassar I, Billah NM (2021) Double Posterior Cruciate Ligament: Signs in Bucket- Handle Tear in the Medial Meniscus. Int J Clin Med Imaging 8:742.*