Stener-Like Lesion of the Medial Collateral Ligament of the Knee

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This and other topics will be discussed in:

Tibial avulsion of MCL in patient with acute ACL tear (not shown). MCL stump is retracted proximal to pes anserinus tendons. "Wave sign": the waving of the superficial layer of the MCL has been described in these tibial avulsions.

Stener MCL Lesion:

Tibial Side Avulsion of Superficial MCL fibers

Torn fibers displace over pes anserine tendons

and prevent healing of MCL back to tibia.

Rare, Associated with ACL Tears

Requires early surgical repair

An injury of the MCL is one of the most common ligamentous injuries of the knee. MCL injuries are graded 1-3, with grade 1 consiting of edema next to the MCL, Grade 2 with abnormal signal within the tendon, and Grade 3 with disruption of the tendon. Most disruptions occur at the proximal end (femoral avulsion) or mid-portion of the MCL. The vast majority of MCL tears will heal with conservative treatment, even Grade 3 tears.

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Stener like lesion
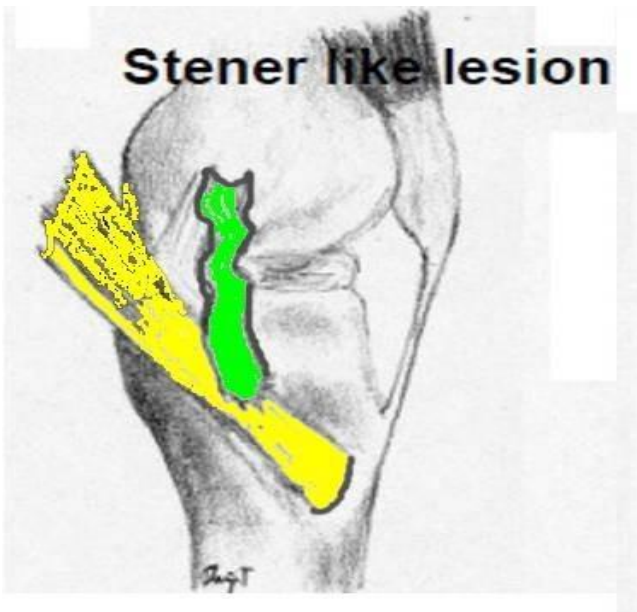
The ruptured tibial end of the MCL is located
above the pes anserinus tendons. This prevents
the MCL from healing to the tibia. Modified
from Taketomi, Knee 2014.

However, tibial avulsions have been recently linked to a rare type MCL tear where the superficial fibers of the MCL are torn while the deep fibers remain intact. These anterior superior fibers may displace over the pes anserine tendons preventing the MCL from healing back to the tibia. This type of MCL tear has been called the "MCL Stener lesion." These are frequently associated with ACL tears and require early surgical intervenon. The "wave" sign has been described in these lesions with a wavy course of the MCL; interestedly, this is not seen in femoral avulsions of the MCL.

With tibial avulsion of the MCL, the ruptured end of the MCL may also become trapped in medial joint. This also requires surgical intervention.