



Detection of Medial Meniscus Posterior Root Tear with Ultrasound

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Clinical Image

Recent paper reported Medial Meniscus Posterior Root Tear (MMPRT) sometimes causes avascular necrosis and osteoarthritis, so it must be careful. For this diagnostic method, MRI is the golden standard examination as same with the other meniscal tear, and particular signs are well known, for example cleft sign, ghost sign and Medial Meniscal Extrusion (MME). On the other hand, we reported the diagnostic accuracy of meniscal tear with ultrasound [1] and previous report showed ultrasound was available to examine MME [2]. However, no paper reported about the diagnosis of MMPRT with ultrasound, so we investigated whether MMPRT can be diagnosed with ultrasound. Among osteoarthritis, we focused on the report that medial tibial osteophyte distance was most closely associated with MME [3]. Therefore, we thought MME with ultrasound is useful to diagnose the patient with knee medial pain (including of painful popping sensation) and slight osteophyte formation by X-ray as MMPRT.

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Figure 1: Medial Meniscus (MM) of right knee with ultrasound Medial meniscal extrusion was not recognized. a: Medial collateral ligament, b: Femur, c: Tibia, d: MM



Figure 2: Medial Meniscus (MM) of left knee with ultrasound Medial meniscal extrusion of 5.3 mm from medial tibial edge was recognized but not medial tibial osteophyte. a: Medial collateral ligament, b: Femur, c: Tibia, d: MM

This case was a 47-year-old female with left knee medial pain one month ago. Ultrasound was also performed because her medial tibial osteophyte was slight at X-ray at the first visit (Figure 1,2). MRD was recognized at left knee but not right knee, so we thought it was possible to diagnose as MMPRT. We checked her left knee with MRI later and our hypothesis was not contradictory. We think it can be easily diagnosed with X-ray and ultrasound in institutions without MRI, and ultrasound is potentially useful to judge the method for the patient hoping surgery.

References

1. Akatsu Y, Yamaguchi S, Mukoyama S, Morikawa T, Yamaguchi T, Tsuchiya K, et al. Accuracy of high-resolution ultrasound in the detection of meniscal tears and determination of the visible area of menisci. *J Bone Joint Surg Am.* 2015;97(10):799-806.
2. Kawaguchi K, Enokida M, Otsuki R, Teshima R. Ultrasonographic evaluation of medial radial displacement of the medial meniscus in knee osteoarthritis. *Arthritis Rheum.* 2012;64(1):173-80.
3. Hada S, Ishijima M, Kaneko H, Kinoshita M, Liu L, Sadatsuki R, et al. Association of medial meniscal extrusion with medial tibial osteophyte distance detected by T2 mapping MRI in patients with early-stage knee osteoarthritis. *Arthritis Res Ther.* 2017;19(1):201.