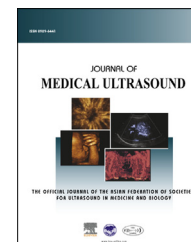


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## IMAGING FOR RESIDENTS

# Medial Knee Pain

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## A case of medial knee pain

A 25-year-old man complained of chronic left medial knee pain for years. He played basketball for fun and sustained several episodes of knee injuries, but he could not recall a specifically more severe trauma accident. The medial knee pain bothered him intermittently when he walked for long distances or stood up from a sitting posture. He could not jog due to the medial knee pain. Non-steroid anti-inflammatory drugs could only partially temporarily relieve his symptoms. The musculoskeletal ultrasound examination was performed with a 18 MHz linear transducer (Fig. 1). Power Doppler mode examination as also performed (Fig. 2).

## Image interpretation

In Fig. 1, the superficial band of medial collateral ligament was densely fibrillar, hyperechoic and straight, with good anisotropy and smooth insertional bony cortex. However, the deep band of medial collateral ligament showed focal anechoic gap between the residual fibrillary structures. In Fig. 2, the power Doppler mode examination showed no blood perfusion increment. Sonographic findings of left knee suprapatellar pouch, quadriceps tendon, patellar tendon, lateral collateral ligament, pes anserine tendons, and posterior cruciate ligaments were all normal. The impression of the musculoskeletal ultrasound examination was a chronic rupture of the deep band of medial collateral ligament.

The medial stabilizing structures of knee include the superficial band of medial collateral ligament, the deep band of medial collateral ligament, and posteromedial capsule. They altogether limit the excessive valgus and

In the "Imaging for Residents" in the previous issue of the *Journal of Medical Ultrasound* [(2013) 21, p. 116], it said that the answers will be provided in the next issue of the journal when in fact they were provided within the same article. We apologize for any confusion caused.

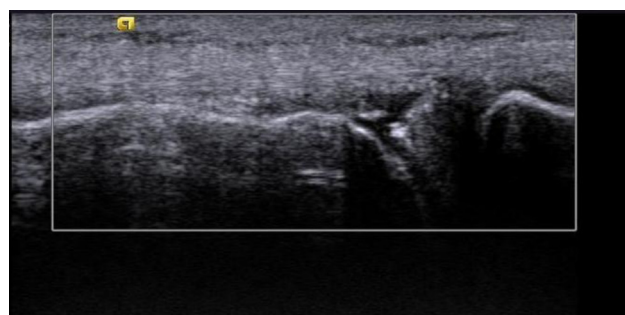


Fig. 1

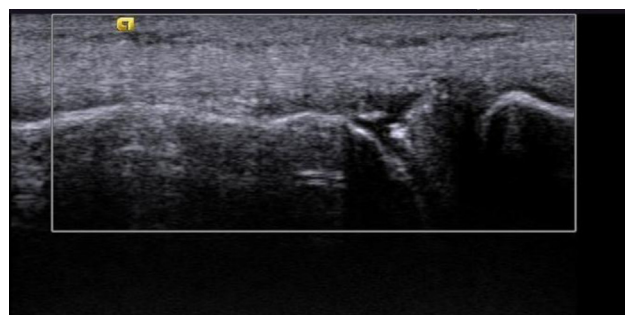


Fig. 2

posterior-rotatory stress during sporting activities [1]. Physical examination, musculoskeletal ultrasound, and magnetic resonance imaging can all make reliable diagnosis of injuries at superficial band of medial collateral ligament [2,3]. However, regarding the deep band of medial collateral ligament, some authors argued that this tiny structure

cannot be consistently observed with a 10–12 MHz transducer [4]. In recent years, the advent of high frequency probes, tissue harmonic imaging, and signal processing techniques promote the ability of musculoskeletal ultrasound to visualize more delicate structures. The deep band of medial collateral ligament can be seen more readily, and injuries can be diagnosed with more confidence.

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