



## Commentary

Should we restart comparing clinical and MRI diagnosis of ACL tears<sup>☆</sup>

The gold standard in diagnosis of anterior cruciate ligament (ACL) injury is diagnostic arthroscopy. However, arthroscopy is rarely performed for diagnosis and non-invasive tests are preferred in most clinical scenarios. Clinical tests and magnetic resonance imaging (MRI) are the most widely adopted tools for ACL tear diagnosis. Current evidences demonstrate that clinical diagnostic tests are more accurate than an MRI scanning in the diagnosis of ACL tear [1].

Current study by Burak Gunaydin et al. [3] introduced a new method of MRI scanning with maximum flexion of knee in the prone position for diagnosis of ACL tear. They focused on patients with suspected partial ACL tears by traditional MRI scanning (in neutral positions) and found a superior diagnostic performance of their new method compared with traditional one. Selection bias is one of the major weakness of this study. For a diagnostic study, it should include an overall population of knee soft-tissue injuries instead of patients selected by traditional MRI scanning.

Another major limitation of this study is the lack of clinical test data. A partial tear of ACL is characterized by an asymmetric Lachman-test result, a negative pivot-shift test, a low-grade KT-1000 arthrometer measurement ( $< \text{or} = 3 \text{ mm}$ ) [2]. It is still unclear whether their method would be superior over clinical tests. Due to the economic consideration, this new method of MRI scanning should at least

outperform these clinical tests in diagnostic accuracy before any advocacy.

Although study is preliminary, it did raise a straightforward question: should we further assess this method and restart comparing clinical and MRI diagnosis in ACL tear diagnosis. Further investigation based on current study would be valuable for this long-existing diagnostic difficulty.

## References

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Hongyi Zhu

Department of Orthopaedic Surgery, Shanghai Jiaotong University Affiliated Sixth People's Hospital, Shanghai, 200233, China  
E-mail address: [420308955@qq.com](mailto:420308955@qq.com).

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