

Diagnostic accuracy of the Thessaly test, standardised clinical history and other clinical examination tests (Apley's, McMurray's and joint line tenderness) for meniscal tears in comparison with magnetic resonance imaging diagnosis

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Plain English summary

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Plain English summary

The menisci of the knee play an important role in absorbing forces transmitted through the knee during movements. Damage to the menisci can result in pain, may limit movement and can require surgery. Currently the best, non-invasive way to diagnose meniscal tears is using a magnetic resonance imaging (MRI) scan. However, MRI scanning is expensive and is a limited resource within the NHS.

This study was designed to determine if the a simple physical examination test, the Thessaly Test, was a suitable alternative for general practitioners (GPs) to use to determine if patients have a meniscal tear or not. We have compared the accuracy of the Thessaly Test, three other physical tests for meniscal tears (Apley's Test, McMurray's Test and joint line tenderness Test) and a standardised clinical history with the results achieved using MRI. All patients were examined by both a primary care clinician (GP or community physiotherapist) and an orthopaedic musculoskeletal clinician. In total, 282 patients underwent a MRI scan (239 with knee problems and 43 controls with no knee problems).

Our results show that neither the Thessaly Test nor any other simple physical examination tests are suitable alternatives for GPs to use alone to diagnose meniscal tears. The best non-invasive, non-imaged method of diagnosing meniscal tears was a clinical history taken by an experienced musculoskeletal clinician.

The findings of this study have implications for primary care clinicians who may wish to consider referral of patients with significant knee pain to a specialist clinician for assessment rather than automatic referral for MRI.

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