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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Declared competing interests of authors: John Norrie is a member of the National Institute for Health Research Health Technology Assessment (HTA) and Efficacy and Mechanism Evaluation Editorial Board and HTA Commissioning Board.

Published August 2015
DOI: 10.3310/hta19620

Plain English summary

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Health Technology Assessment 2015; Vol. 19: No. 62
DOI: 10.3310/hta19620

NIHR Journals Library www.journalslibrary.nihr.ac.uk
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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This report

The research reported in this issue of the journal was funded by the HTA programme as project number 09/163/02. The contractual start date was in September 2012. The draft report began editorial review in July 2014 and was accepted for publication in March 2015. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors’ report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health.

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