

Case Blog

Title: Cost-effectiveness Analysis of the Diagnosis of Meniscus Tears

Richard C Mather*

Department of Orthopaedic Surgery, Duke University Medical Center, Durham, North Carolina, USA

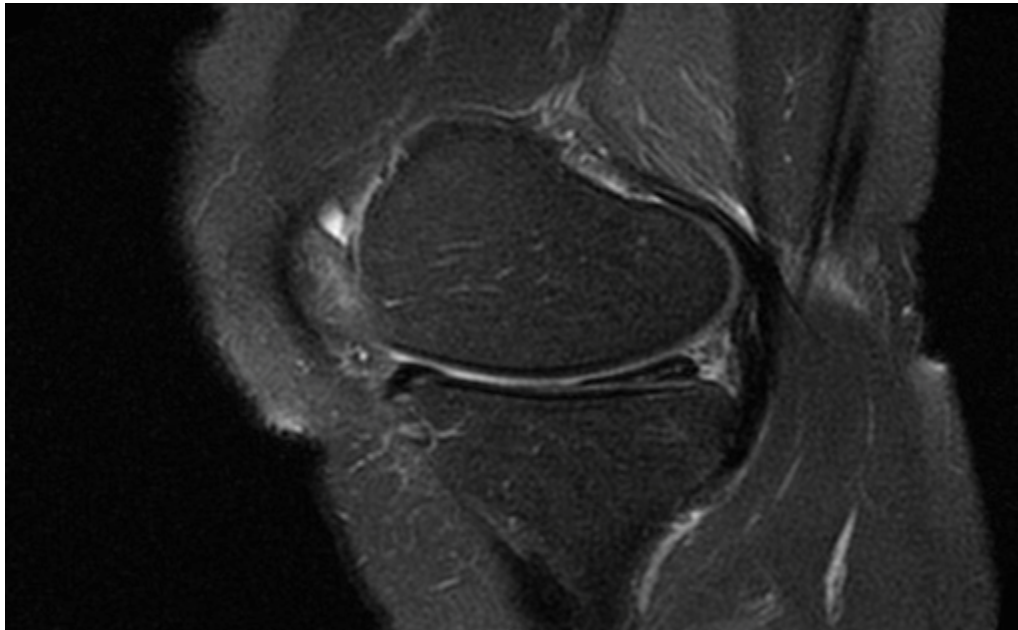


Figure 1: Diagnosing traumatic meniscus tears in younger patients.

These are the MRI scans of a 58-year-old female, who was seen in an orthopaedic sports medicine clinic with complaints of medial knee pain after an increase in squatting forms of exercise. In addition she notes mechanical symptoms and pain with lateral and twisting movements. Physical examination revealed a small effusion, a negative Lachman test, medial joint line tenderness and a positive McMurray's test. The MRI shows a medial meniscus tear of the right knee. The MRI also shows degeneration of the lateral meniscus posterior horn.

History and physical examination (H&P) has good accuracy for the diagnosis of meniscus tears of the knee. For all degenerative types of tears, H&P alone without MRI is the preferred, cost effective diagnostic strategy. However, there is a role for the use of an MRI in addition to H&P in diagnosing traumatic meniscus tears in younger patients. While MRIs may aid in the diagnostic process and might even be considered the gold standard, alternative strategies that eliminate MRI use may decrease both health care costs and the number of unnecessary procedures without compromising patient safety (Figure 1).