

ABSTRACT

Diagnostic accuracy and reliability of Triangular Fibrocartilage Complex (TFCC) provocation tests: a systematic review

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Provocation tests are routinely used in the diagnosis of Triangular Fibrocartilage Complex (TFCC) injuries by medical practitioners including physiotherapists and hand therapists. The accuracy and reliability of these tests are essential to ensure a correct diagnosis of injury. Despite their extensive clinical use, the current evidence on these tests is limited. The purpose of this review was to evaluate studies that examined accuracy and reliability of provocation tests for TFCC injuries. A systematic search was undertaken across six databases. Studies were evaluated using the Quality Assessment of Diagnostic Accuracy Studies (QUADAS-2) tool, and the Quality Appraisal of Reliability Studies (QAREL) scale. Reliability and diagnostic accuracy metrics including reliability, sensitivity specificity, likelihood ratios and predictive values were extracted. A total of 13 eligible studies were retrieved. Of this, five studies investigated reliability; this included three different provocation tests assessing both inter-rater and intra-rater reliability. Eight studies investigated diagnostic accuracy, which included five different TFCC provocation tests. The majority of the diagnostic accuracy studies showed a lower risk of bias, and the reliability studies were of moderate to high quality. This review indicated that a small number of studies showed high reliability, which indicated consistency of the test both between different raters, and between the same rater at different times. However, reported estimates of accuracy indicated limited diagnostic utility. Only a few studies reached acceptable threshold values to determine its clinical usefulness, and there were large inconsistencies of findings between studies that investigated the same test. In this presentation, I will discuss the findings of this systematic review including the usefulness of individual provocation tests for the TFCC, the recommendations and application for clinical practise, and direction needed for future research.