

ACCURACY OF DIAGNOSTIC ULTRASOUND IN THE DETECTION OF ROTATOR CUFF TEARS

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Abstract (Limited to 300 Words):

Purpose: The purpose of this critical review of literature was to determine the accuracy of diagnostic ultrasound in detecting rotator cuff tears compared to other imaging methods and discuss its clinical applicability.

Description: Searches were conducted using the search engines Cinahl Plus with Full-Text, Medline Plus with Full-Text and SOLAR. Five articles assessing the accuracy of diagnostic US compared to other methods of imaging were critically reviewed. The majority of the articles found US to have high diagnostic accuracy and were comparable to the results of MRI and arthroscopy. US had higher diagnostic accuracy in detecting full-thickness tears compared to slightly lower diagnostic accuracy in the detection of partial-thickness tears; which was the same for MRI. Some studies found diagnostic US to be more accurate than MRI.

Observations: There have been reservations about the use of diagnostic US as a primary imaging method in the diagnosis of rotator cuff tears and it has been associated with a long learning curve. The overall common findings of the studies reviewed were that diagnostic US had high levels of accuracy in detecting full-thickness tears and these levels varied between studies but were comparable to those of MRI. Diagnostic US is cost effective, time efficient, convenient, less invasive, well-tolerated, readily available, provides immediate results, allows dynamic evaluation and can be performed with specialized training.

Conclusions: Diagnostic US can be proposed as a primary imaging technique for the detection of rotator cuff tears in conjunction with a clinical examination and diagnosis. Evidence has shown that it has a high accuracy in detecting full-thickness tears and is comparable to methods such as MRI and arthrography.

PT implications: This is an imaging method that has many advantages compared to other methods and can be used by physical therapists in the clinical setting without a referral.