



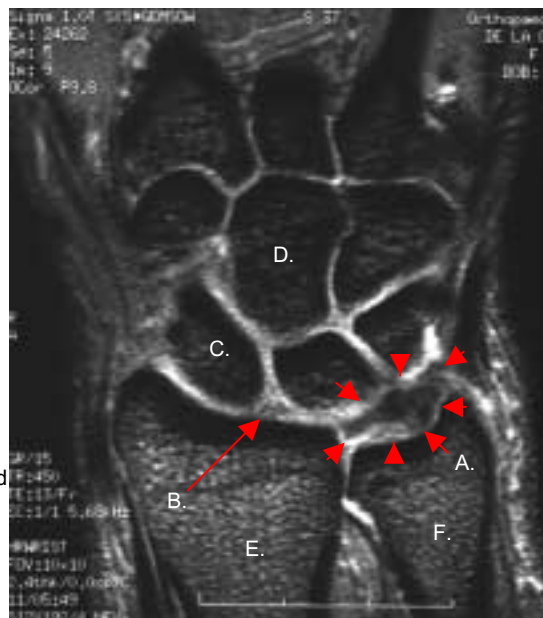
Medical Diagnostic Associates, A Medical Corporation
Department of Continuing Medical Education

MRI of the Wrist Case Study

Triangular Fibrocartilage Complex

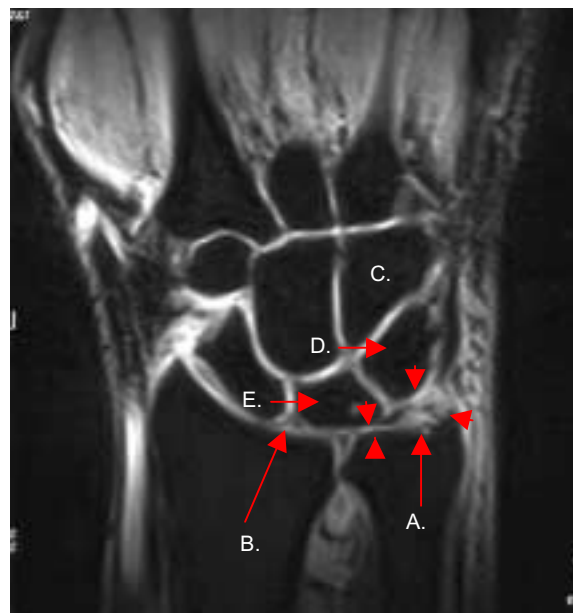
Evaluation of the triangular fibrocartilage complex (TFCC) is one of the most common reasons for ordering an MRI of the wrist. The TFCC lies between the distal ulna and the carpal bones, with attachment to the ulna, radius, lunate and triquetrum and the hamate bones (Fig. 1). Degeneration of the TFCC or acute injury and tear may contribute to instability of the joint, and MRI elegantly demonstrates the complex anatomy of the TFCC. Coronal images demonstrate degeneration and fraying of the TFCC, as well as TFCC tears (Fig. 2). Intraarticular injection of gadolinium (MRI arthrogram) increases sensitivity of MRI for detecting small tears of both the TFCC and the scapholunate ligament.

Figure 1: Normal MRI Wrist



- A. Triangular fibrocartilage complex (TFCC) (black structure surrounded by arrowheads)
- B. Scapholunate ligament
- C. Scaphoid
- D. Capitate
- E. Radius
- F. Ulna

Figure 2: Triangular Fibrocartilage Complex Tear



- A. Disrupted TFCC (note absence of normal black structure in area surrounded by arrowheads (see figure 1))
- B. Scapholunate ligament
- C. Hamate
- D. Triquetrum
- E. Lunate

Thank you for your continued support in referring MRI CT & EMG's to MDIA. This support enables us to provide continuing education on a regular basis along with other ongoing Medical Resource activities.