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Mathew, AJ, Krabbe, S, Eshed, I et al. (2019) The OMERACT MRI in Enthesitis Initiative: Definitions of Key Pathologies, Suggested MRI Sequences and Novel Heel Enthesitis Scoring System (HEMRIS). *Journal of Rheumatology*, 46 (9). pp. 1232-1238. ISSN: 0315-162X

<https://doi.org/10.3899/jrheum.181093>

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Appendix:

Appendix Figure 1

Figure 1A: Line-drawing of the scoring sheet used in the scoring exercises

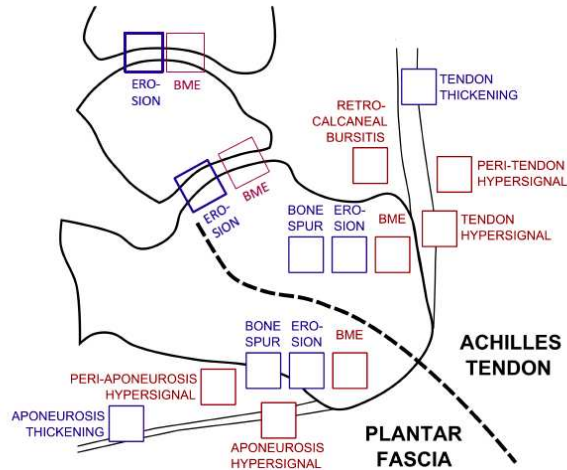
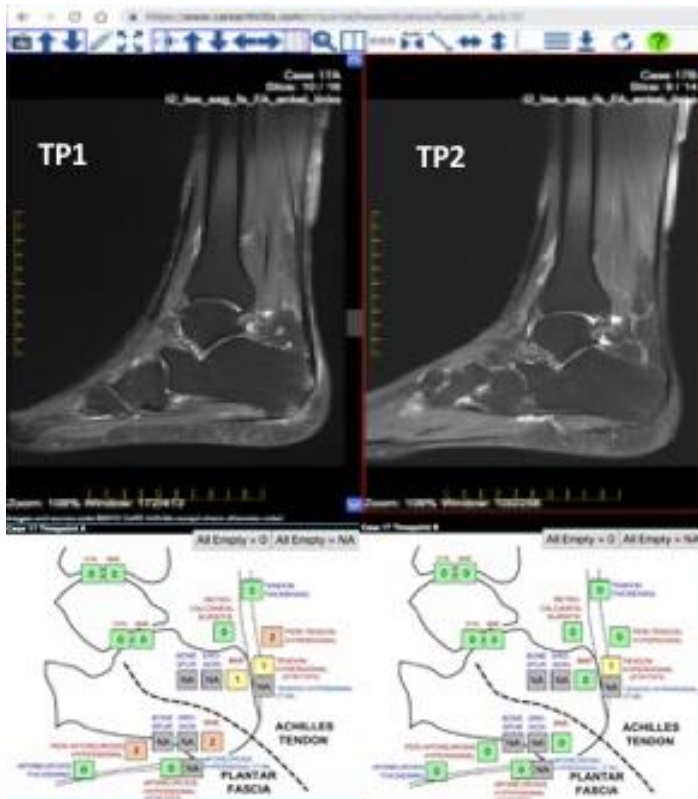


Figure 1B: Web-based reader platform used for scoring exercises.

T2w fat suppressed images from the same patient at two time points before (TP1) and after (TP2) anti-TNF therapy. Below the images, data entry forms are shown, which are used to enter the scores the individual pathologies.



Appendix Box 1: Reader rules for heel enthesitis

MRI sequences: STIR/T2wFS or, alternatively T1w post-Gd; T1w without contrast (not mandatory if only inflammation is assessed)

Imaging planes: Achilles tendon: Sagittal and preferably coronal; Plantar aponeurosis: Sagittal and preferably axial

Area to score: At the heel region, the entheses are evaluated within 1 cm from the tendon/aponeurosis insertion.

Scoring procedure:

Enteseal soft tissue inflammation

- If T1w post-Gd images are available, enteseal soft tissues are assessed on these and the intratendon/peritendon/bursal hypersignal is defined as above-normal post-gadolinium enhancement on T1w images
- If only STIR/T2wFS images are available, enteseal soft tissues are assessed on these and the intratendon/peritendon/bursal hypersignal is defined as high signal intensity on STIR/T2wFS images
- Grading scale is 0-3 based on thirds of the maximum potential volume of enhancing soft tissue: Score 0 – normal; 1 – mild; 2 – moderate and 3 – severe.

Enteseal osteitis

- If STIR/T2wFS images are available, enteseal osteitis is assessed on these defined as a lesion within the enteseal bone marrow with ill-defined margins and high signal intensity on STIR/T2wFS images (“bone marrow edema”)
- If only T1w-post Gd images are available, enteseal osteitis is assessed on these, and defined as a lesion within the enteseal bone marrow, with ill-defined margins, which shows above-normal enhancement on T1w-post-Gd images (“bone marrow post-contrast enhancement”)
- Grading scale is 0-3 based on the proportion of bone with edema, compared to the ‘assessed bone volume’, judged on all available images: 0 – no edema; 1: 1-33% of the bone is edematous; 2: 34-66% of the bone is edematous; 3: 67-100% of the bone is edematous.

Enteseal structural damage variables

- Enteseal structural damage variables are scored based on T1w pre-Gd images.