**Supplementary file 1.**

**Ultrasonography**

*US scoring of joints and tendons*

A total of 48 joints were assessed by use of standard projections[1] including bilateral wrist (radiocarpal, midcarpal, radioulnar joints scored separately), metacarpophalangeal 1-5, proximal interphalangeal 1-5, elbow, hip, knee, ankle (talocrural joint), talonavicular, subtalar and metatarsophalangeal 1-5 joints. Grey scale (GS) and power Doppler (PD) in joints were scored semi-quantitatively on a 4-point scale 0-3 with the Norwegian ultrasonographic atlas as reference.[2] The two sonographers have previously shown high agreement on US scoring.[2] In addition, 10 finger flexor tendons (bilateral digits 1-5) were assessed, with GS and PD tenosynovitis scored 0-3 according to OMERACT proposed definitions.[3,4]

*US scoring of entheses*

A total of 14 entheses were assessed (lateral epicondyle, triceps, distal quadriceps, proximal and distal patellar, Achilles and plantar fascia bilaterally).

GS signs reflecting active inflammation[5] were evaluated as hypo-echogenicity (scored 0-3 (0= normal, 1=minor, 2=moderate, 3= major presence) in all entheses (except plantar fascia) and increased thickness (measured at the insertion of the deeper tendon margin into the bone at its thickest part evaluated in short axis and scored 0-1 (0= normal, 1= thickened). In lower extremities criteria for increased thickness were adopted from Balint[6] (quadriceps tendon thickness >6.1 mm, proximal and distal patellar tendon >4 mm, Achilles tendon >5.29 mm and plantar fascia >4.4 mm), for triceps cut-off value of > 4.3 was used[7], and lateral epicondyle was assessed according to clinical evaluation of enthesis contour bulging since there were no published standardized cut-off values. Triceps and lateral epicondyle entheses were examined with the elbow flexed at 90°, entheses of the knee region were examined with knee at 30° flexion and Achilles and plantar fascia were examined in prone positioning with the feet at 90° of flexion.

GS signs reflecting chronic changes[5] were evaluated as calcifications (scored 0-3 (0= normal, 1= minor, 2= moderate, 3= major presence)), enthesophytes (assessed for size (scored 0-3), measured as height of the largest enthesophyte: 0= normal, 1=<2 mm, 2= 2-4 mm, 3=> 4 mm) and erosions (assessed for size (score 0-5) measured as diameter of largest erosion: 0= normal, 1= <1 mm, 2=1-2mm 3=2-3mm, 4=3-4mm, 5= > 4 mm). Number of enthesophytes and erosions were additionally evaluated on a scale 0-2 (0=0, 1=1, 2= ≥2).

PD activity in entheses was assessed for inflammation[5] and was scored on a 3-point scale (0= normal, 1=minor, 2=moderate, 3= major presence) for the entheses region (PD signals <2mm from the bone surface). The positions for assessing PD activity were as described for GS scoring, except for entheses of the knee region examined in extended position with the knee relaxed.

*US scoring of bursae*

A total of 4 bursae were assessed (deep infrapatellar and retrocalcaneal bursae bilaterally). Bursitis was defined as a well-circumscribed, localized anechoic or hypoechoic area at the site of an anatomical bursa, which was compressible by the transducer with normal dimensions < 2 mm in short axis[6]. Bursae were scored semi-quantitatively by GS for size and PD (0-3) (0= normal, 1= minor, 2= moderate, 3= major size/ activity).

*Sum scores of GS and PD pathologies*

Total sum scores indicating inflammation were calculated separately for GS and PD including joint synovitis, tenosynovitis, enthesitis and bursitis (range 0-236 and 0-222, respectively). In addition, a GS chronicity sum score was calculated for entheses including enthesophytes size/ number, erosions size/ number and calcifications (range 0 -210). US remission was defined as total PD sum score of zero.

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3 Naredo E, D’Agostino MA, Wakefield RJ, *et al.* Reliability of a consensus-based ultrasound score for tenosynovitis in rheumatoid arthritis. *Ann Rheum Dis* 2013;**72**:1328–34.

4 Hammer HB, Kvien TK, Terslev L. Tenosynovitis in rheumatoid arthritis patients on biologic treatment: involvement and sensitivity to change compared to joint inflammation. *Clin Exp Rheumatol*;**35**:959–65.

5 Terslev L, Naredo E, Iagnocco A, *et al.* Defining enthesitis in spondyloarthritis by ultrasound: results of a Delphi process and of a reliability reading exercise. *Arthritis Care Res (Hoboken)* 2014;**66**:741–8.

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7 de Miguel E, Cobo T, Muñoz-Fernández S, *et al.* Validity of enthesis ultrasound assessment in spondyloarthropathy. *Ann Rheum Dis* 2009;**68**:169–74.