FRI0660 **USEFULNESS OF MICHIGAN HAND OUTCOMES QUESTIONNAIRE (MHQ) IN HAND OSTEOARTHRITIS**

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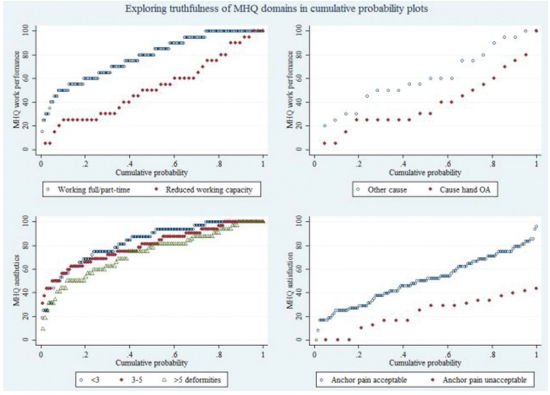
Background: Several tools are available to measure hand pain and function in hand osteoarthritis (OA), though all have their disadvantages, e.g. being not freely available (Australian/Canadian Hand OA Index, AUSCAN), outdated (Functional assessment In Hand OA, FIHOA) or a single-item tool (Visual Analogue Scale, VAS). The MHQ is free to use, validated in other diseases, and has 6 scales assessing pain, function (overall function and activities of daily living [ADL]), and 3 unique domains: work performance, aesthetics, satisfaction (all range 0–100, and higher is better except for pain).
Objectives: To investigate truth and discrimination of MHQ in hand OA.
Methods: At baseline (n=383) and two-year follow-up (n=293) symptomatic hand OA patients from the Hand OSTeoArthritis in Secondary care (HOSTAS) cohort completed questionnaires (MHQ, AUSCAN, FIHOA, VAS pain). Work status was categorized into (fulltime/part-time) employed, reduced working capacity (sick leave or partial/complete disability to work), or not in the workforce (unemployed or retired). Reduced working capacity could be due to hand OA or other causes. Anchor questions assessed whether level of pain/function was acceptable or unacceptable, and different (worse, unchanged or improved) compared to baseline. Number of joints with deformities was assessed, and split into tertiles (<3, 3–5, >5). To appraise validity of MHQ pain and function domains correlation with existing instruments (Spearman correlation coefficients, r_s) was evaluated. Using external anchors to categorize patients, validity of the unique domains and discrimination of all domains was visualized in cumulative probability plots (figure 1), and mean between-group difference (MD) was calculated with linear regression.
Results: At baseline patients (84% women, median age 60.3, 90% fulfilling ACR criteria) reported moderate pain (median, interquartile range MHQ pain 45, 31.3–60) and functional impairment (MHQ overall function 57.5, 50–67.5; ADL 80.5, 68.2–89.6). MHQ pain and function scales correlated well with existing instruments (table 1). Patients with reduced working capacity had worse MHQ work performance scores than employed patients (MD -25.7, 95% confidence interval [CI] -32.8;-18.6), and scores were worse if it was due to hand OA than when there was another cause (MD -21.4, -37.1;-5.8). MHQ aesthetics scores were worse in patients with more deformities (MD -1.03, -1.60;-0.45 per additional deformity). Patients with 'unacceptable' pain/function had worse MHQ satisfaction scores (eg. pain: MD -27.2, -37.1;-17.3). All instruments measuring pain/function could discriminate between patients with acceptable vs. unacceptable pain/function (not shown). MHQ ADL scale and AUSCAN function outperformed MHQ overall function and FIHOA in discriminating between patients whose function improved vs. worsened over time (not shown). For discrimination of change in pain over time, MHQ and AUSCAN pain both outperformed VAS pain.



Conclusions: MHQ performs at least as good and may replace existing instruments in measuring pain and function in hand OA. In addition, MHQ provides information on work performance, aesthetics and satisfaction, which is not measured by other questionnaires. Sensitivity-to-change has to be assessed in future trials.
Disclosure of Interest: None declared
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FRI0661 **ULTRASOUND OF SUBTALAR JOINT SYNOVITIS IN PATIENTS WITH RHEUMATOID ARTHRITIS: RESULTS OF AN OMERACT RELIABILITY EXERCISE USING CONSENSUAL DEFINITIONS**

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Background: The incidence of subtalar joint (STJ) disease in patients with rheumatoid arthritis (RA) is greatly increased between five and ten years of disease duration and regularly precedes changes in the tibiotalar joint [1]. The joint is notoriously difficult to assess clinically and frequently overlooked in favour of the more accessible tibiotalar joint.
We hypothesized that US might be used as a reliable outcome measure to evaluate synovitis of the STJ in patients with RA. The objectives of this study were first, to develop an expert consensus derived definition of synovitis and scanning protocol for the STJ and second, to test the reliability of the definitions and protocol.
Objectives: To evaluate the intra- and interobserver reliability of the US assessment of STJ synovitis in patients with RA.
Methods: Following a Delphi process, twelve sonographers conducted an US reliability exercise on 10 RA patients with hindfoot pain. The anteromedial, posteromedial, and posterolateral STJ was assessed using B-mode and power Doppler (PD) techniques according to an agreed US protocol and using a 4-grade semiquantitative grading score for synovitis (synovial hypertrophy (SH) and power Doppler (PD) signal) and a dichotomous score for the presence of joint effusion (JE). Intraobserver and interobserver reliability were computed by Cohen and Light kappa (k). Weighted k coefficients with absolute weighting were computed for B-mode and PD signal.
Results: Mean weighted Cohen's kappa for SH, PD, and JE, was 0.80 (0.62–0.98), 0.61 (0.48–0.73), and 0.52 (0.36–0.67), respectively. Weighted Cohen's kappa for SH, PD, and JE in the anteromedial, posteromedial and posterolateral STJ was -0.04–0.79, 0.42–0.95, and 0.28–0.77; 0.31–1, -0.05–0.65, and -0.2–0.69; 0.66–1, 0.52–1, and 0.42–0.88, respectively. Weigthed Light kappa for SH was 0.67 (95%CI 0.58–0.74), 0.46 (0.35–0.59) for PD, and 0.16 (0.08–0.27) for JE. Weighted Light kappa for SH, PD, and JE was 0.63 (0.45–0.82),0.33 (0.19–0.42) and 0.09 (-0.01–0.19), for the anteromedial; 0.49 (0.27–0.64), 0.35 (0.27–0.4), and 0.04 (-0.06–0.1) for posteromedial, and 0.82 (0.75–0.89), 0.66 (0.56–0.8), and 0.18 (0.04–0.34) for posterolateral STJ, respectively.
Conclusions: Ultrasound is a feasible and reliable tool for assessing synovitis of the posterolateral STJ in RA, but not for the anteromedial and posteromedial STJ. SH can be reliably detected in B-mode and PD mode, but this is not true for JE.

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FRI0662 **CALPROTECTIN S100 A8/A9 IN A SOUTH AFRICAN RHEUMATOID ARTHRITIS (RA) COHORT**

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Background: Calprotectins(CLP) S100 A8/A9 are small calcium binding proteins[1] belonging to the group of damage-associated molecular patterns (DAMPs) or alarmins. They play a key role in the inflammatory response in RA. [2, 3]The measurement of CLP S100 A8/A9 in serum may be a useful strategy to optimize management of patients with RA.[4]