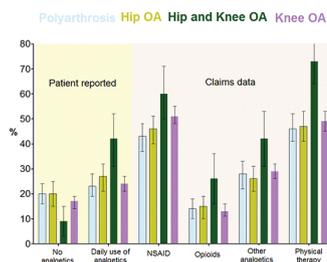


frequent impairment on work (66%) and personal life (87%) and the highest use of analgesics (60% NSAIDs, 25% opioids and 40% others). In the regression analyses, BMI per 5 units and WHO-5 per 10% worsening were associated with an increase in WOMAC values of 3-4 points, irrespective of the joint manifestations.

| Model | Parameter | Reference | WOMAC | | | |
|----------|------------------------|-------------------|-------------------|-----------------|------------------|------------------|
| | | | Polyarthrosis | Hip OA | Knee and Hip OA | Knee OA |
| Model 1 | Age | per 10 years | 0,7 (-0,6; 2,0) | 0,7 (-1,2; 2,6) | 2,0 (-0,5; 4,4) | -0,1 (-3,5; 3,3) |
| | Gender: Male | Female | -3,8 (-6,7; -1,0) | 0,8 (-3,5; 5,0) | -3,7 (-8,1; 0,6) | -0,5 (-7,6; 6,6) |
| Model 2* | BMI, kg/m ² | per 5 units | 4,4 (3,2; 5,5) | 3,1 (1,1; 5,2) | 4,2 (1,8; 6,6) | 4,1 (0,6; 7,6) |
| Model 3* | Symptom duration | per year | 0,3 (0,2; 0,5) | 0,4 (0,2; 0,6) | 0,2 (-0,0; 0,4) | 0,4 (0,0; 0,8) |
| Model 4* | WHO-5 (0-100) | per 10% worsening | 4,4 (3,8; 5,0) | 3,2 (2,2; 4,1) | 4,1 (3,3; 5,1) | 3,9 (2,1; 5,9) |

Table: Results of four separate multiple linear regression models with the WOMAC as the dependent variable. Regression coefficients with 95% confidence intervals are shown.

*Model adjusted for age, gender. BMI: Body Mass Index, OA: Osteoarthritis, WOMAC: Western Ontario and McMaster Universities Osteoarthritis Score.



Abstract THU0429 – Figure 1. Patient reported use and claims data prescriptions of analgesics and physical therapy. NSAID: Non-steroidal anti-rheumatic drugs, OA: Osteoarthritis.

Conclusion: Disease burden is high in persons with concomitant knee and hip OA, going along with frequent prescription of analgesics. The pattern of joint affection, BMI and depressive symptoms need to be considered when using the WOMAC as an outcome instrument.

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THU0430

PREPARING AN ORTHOPAEDIC CONSULTATION USING AN EHEALTH TOOL: A RANDOMIZED CONTROLLED TRIAL IN PATIENTS WITH HIP AND KNEE OSTEOARTHRITIS

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Background: Hip and knee OA patients who are referred to an orthopaedic surgeon often expect action to be taken.¹ However, the majority who of those patients is not (yet) eligible for a joint replacement.^{2,3} We hypothesized that a solid preparation using the eHealth tool is likely to streamline patients' expectations and increase satisfaction, irrespective of the outcome of the consultation.

Objectives: To evaluate the effect of a stand-alone mobile and web-based educational intervention (eHealth tool) compared to usual preparation of a first orthopaedic consultation of patients with hip or knee osteoarthritis (OA) on patients' satisfaction.

Methods: A two-armed unblinded randomized controlled trial involving 286 patients with (suspicion of) hip or knee OA, randomly allocated to either

receiving an educational eHealth tool to prepare their upcoming consultation (n=144) or usual care (n=142). Satisfaction with the consultation on three subscales (range 1-4) of the Consumer Quality Index (CQI - primary outcome) and knowledge (assessed using 22 statements on OA, range 0-22), treatment beliefs (assessed by the Treatment beliefs in OsteoArthritis questionnaire, range 1-5), pain medication use (yes/no), assessment of patient's involvement in consultation by the surgeon (assessed on a 5-point Likert scale) and patient satisfaction with the outcome of the consultation (numeric rating scale), were assessed.

Results: No differences between groups were observed on the 3 subscales of the CQI (group difference (95% CI): communication 0.009 (-0.10, 0.12), conduct -0.02 (-0.12, 0.07) and information provision 0.02 (-0.18, 0.21)). Between group differences (95% CI) were in favour of the intervention group for knowledge (1.4 (0.6, 2.2)), negative beliefs regarding physical activities (-0.19 (-0.37, -0.002) and pain medication (-0.30 (-0.49, -0.01)). We found no differences on other secondary outcomes.

Conclusion: An educational eHealth tool to prepare a first orthopaedic consultation for hip or knee OA does not result in higher patient satisfaction with the consultation, but it does influence cognitions about osteoarthritis.

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THU0431

FREQUENCY OF TENDON INVOLVEMENT AND ITS EFFECT ON HAND FUNCTION IN HAND OSTEOARTHRITIS

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Background: Tenosynovitis and consequent tendon damage are common findings in inflammatory arthritides. In contrast to rheumatoid arthritis (RA) and psoriatic arthritis, little is known about the frequency of tendon involvement in hand osteoarthritis (HOA) and the influence thereof on hand function. Ultrasound has been reported to have a high specificity in diagnosing tenosynovitis and tendon damage.

Objectives: We aimed to appraise the frequency of tendon involvement in HOA and to assess the agreement between ultrasound (US) and clinical diagnosis of tenosynovitis and tendon damage in HOA. In addition, we wanted to assess the influence of tendon involvement on hand function.

Methods: We included 73 patients with HOA in the study. Each patient underwent a clinical as well as a US examination of the 6 extensor tendon compartments and 6 flexor tendons of the hand (fig. 1). They were assessed for US signs of tenosynovitis and tendon damage as well as osteophytes (presence/absence) by a sonographer blinded to clinical information, as well as for clinical tendon involvement (presence/absence) by a biometrician blinded to the US results. Difference in frequency of sonographically detected tendon involvement between flexor and extensor tendons and between right and left hand were calculated by Chi-Square test. Osteophytes were also evaluated on standard radiographs. Agreement between US and clinical examination was calculated by Cohen's kappa. Hand function was quantified using the Score for the Assessment and Quantification of Chronic Rheumatoid Affections of the Hands (SACRAH) questionnaire as well as the Moberg pick-up test (MPUT). Correlation between MSACRAH and tendon involvement was calculated by Spearman's correlation.

Results: In 41 patients (56.2%), at least one tenosynovitis was observed and in 8 (11%) patients, at least one tendon damage was detected by US. Tendon damage was found more often in flexor tendons (0.2% vs. 2.2%, p<0001), while tenosynovitis was found more often in extensor

tendons (6.9% vs. 0.7%, $p<0.001$). The right hand was affected more often by tendon damage than the left hand (2.5% vs. 1.1%, $p<0.05$), but not by tenosynovitis (3.5% vs. 4%, $p=0.7$). Among all tendons, tenosynovitis affected most often the sixth extensor compartment (in 28.1%), while tendon damage most frequently involved Flexor digitorum II and II (each 4.8%) detected by US (fig. 1).

Clinically, any tendon involvement was observed in 57 (78.1%) patients. There was no agreement between the US and the clinical examination on the level of individual tendons (κ -0.0007) and only slight agreement on the level of individual patients (any affected tendon yes/no) (κ 0.16). We also found no association between osteophytes (radiographic or US) and tendon involvement regardless of assessment. Neither total MSACRAH nor the MPUT correlated with the number of affected tendons detected by US. However, there was a slightly significant correlation between the number of clinically affected tendons and the MSA-CRAH subtest for hand function and stiffness.

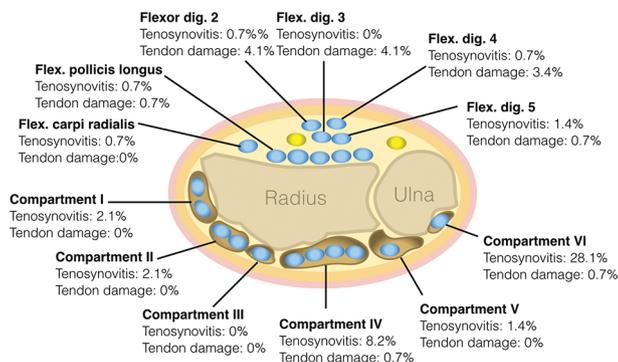


Fig. 1 Distribution of tenosynovitis and tendon damage in the sonographic examination

Abstract THU0431 – Figure 1.

Conclusion: This study revealed a high frequency of tendon involvement in HOA. The prevalence of tenosynovitis was similar as reported for RA and other inflammatory arthritides. The fact that we could demonstrate marked differences in the distribution of tenosynovitis and tendon damage between and among flexor and extensor tendons as assessed on US, coupled with the overall homogeneous clinical involvement, suggests that clinical examination may be less specific for tendon involvement as compared to US. Tendon involvement on US does not seem to have an impact on hand function in HOA.

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THU0432 LUMBAR FACET JOINT OSTEOARTHRITIS IS A RISK FACTOR OF SACROILIAC JOINTS DEGENERATION

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Background: Degeneration of sacroiliac joints (SIJ) is common in the general population, which associates with age, gender and body mass index (BMI). This degenerative disease relates to various lumbar

disorders. Lumbar facet joint osteoarthritis (LFJOA) is highly prevalent, but relationship between this disease and SIJ degeneration remains poorly evaluated.

Objectives: This study aimed to investigate the relation between LFJOA and SIJ degeneration. We hypothesized that LFJOA patients might suffer more serious SIJ degeneration, thus multiple linear regression was employed to compare the effect of LFJOA and demographic characteristics on degeneration of SIJ.

Methods: We reviewed pelvic and lumbar computed tomography (CT) examinations of LFJOA patient with low back pain (LBP) through a picture archiving and communication system. The controls were age, gender and BMI-matched individuals who were free of LFJOA and LBP, and underwent pelvic and whole abdomen CT scans due to the non-musculoskeletal symptoms. Severity of SIJ degeneration was scored using a quantitative method which has been described by Bäcklund et al [1]. LFJOA was graded using a method which has been mentioned by Weishaupt et al [2]. Briefly, this method concerns facet joint space, osteophytes, hypertrophy of the articular processes, and subarticular bone erosions, which ranges from 0 to 3 for a joint. If there is a discrepancy between 2 joints in the same level, the greater one was used. LFJOA was defined at least one level ≥ 2 from L1-2 to L5-S1. Scores of SIJ degeneration were compared between LFJOA patients and the controls. Correlation analysis between SIJ degeneration score and number of LFJOA levels, number of LFJOA joints, sum of LFJOA grades were performed. Stepwise multiple linear regression model was used to find the most important contributor of SIJ degeneration among LFJOA, gender, age and BMI.

Results: (1) CT examinations of 992 LFJOA patients and 399 controls were reviewed. (2) Score of SIJ degeneration in LFJOA patients were higher than that of the controls (8.85 ± 2.94 vs. 4.31 ± 2.52 , $P<0.05$). (3) SIJ degeneration score positively correlated with number of LFJOA levels ($r=0.11$, $P<0.05$), number of LFJOA joints ($r=0.09$, $P<0.05$) and sum of grades ($r=0.10$, $P<0.05$). (4) Results of multiple linear regression were shown in Table 1. LFJOA had the greatest standardized coefficient in the regression model.

Conclusion: LFJOA patients suffers more significant SIJ degeneration, and more severe LFJOA leads to more serious SIJ degeneration. Influence of LFJOA on SIJ degeneration is stronger than demographic characteristics.

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Abstract THU0432 – Table 1. Stepwise multiple linear regression model for sacroiliac joints degeneration score

| Independent variables | Unstandardized coefficient | | Standardized coefficient | P value | 95% confidence interval for B | | Variance inflation factor |
|-----------------------|----------------------------|------|--------------------------|---------|-------------------------------|-------------|---------------------------|
| | B | SE | | | Lower bound | Upper bound | |
| LFJOA | -4.49 | 0.12 | -0.58 | <0.001 | -4.73 | -4.25 | 1.00 |
| Age | 0.124 | 0.00 | 0.55 | <0.001 | 0.12 | 0.13 | 1.01 |
| BMI | 0.05 | 0.01 | 0.06 | <0.001 | 0.02 | 0.07 | 1.00 |
| Gender | 0.30 | 0.11 | 0.04 | 0.009 | 0.08 | 0.53 | 1.01 |

SE standard error, LFJOA lumbar facet joint osteoarthritis, BMI body mass index $R^2=0.65$, adjusted $R^2=0.65$

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Disclosure of Interests: None declared

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THU0433 THE BURDEN OF OSTEOARTHRITIS PAIN FROM THE PATIENT'S PERSPECTIVE IN EUROPE

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Background: Pain, the primary symptom of osteoarthritis (OA), affects multiple aspects of a patient's life.

Objectives: To evaluate the burden of OA pain from the patient's perspective in 5 European countries (France, Germany, Italy, Spain, the United Kingdom; EU5).