• Patients with previous knee surgery, recent trauma, or intraarticular intervention.
• Patients with knee effusion, active synovitis, or popliteal cysts.
All patients were subjected to ultrasound assessment in gray scale and Power Doppler was performed using a scanner with a multifrequency 12L linear array transducer (General electric Systems; LOGIQU-E). Ultrasound techniques were used for all patients included in the study. Knee was assessed for the following items in both sides while Patient lying supine with the knee flexed 40 degrees:
1) Superior pole of the patella – quadriceps tendon enthesis: • Quadriceps tendon thickness >6.1 mm • Suprapatellar bursitis • Superior pole of patella erosion • Superior pole of patella enthesophyte.
2) Inferior pole of the patella – proximal patellar ligament enthesis: • Patellar ligament thickness >4 mm • Inferior pole of patella erosion • Inferior pole of patella enthesophyte.
3) Tibial tuberosity – distal patellar ligament enthesis • Patellar ligament thickness >4 mm • Infrapatellar bursitis • Tibial tuberosity erosion • Tibial tuberosity enthesophyte.
Knee functional status was assessed using KOOS scale for Pain, other Symptoms, Activities of Daily Living (ADL), Sport and Recreation Function (Sport/Rec) and knee-related Quality of Life (QOL). Low knee function was considered if the patient had score 50 or more in any KOOS scale parameter.
Results: 172 (42%) patients were found with low knee function among them quadriceps enthesitis found in 114 (66.3%) patients, at the patellar attachment of infrapatellar ligament in 160 (93%) patients, and enthesitis at the tibial attachment of infrapatellar ligament in 44 (26%) patients. Good knee function were found in 238 (58%) patients among them quadriceps enthesitis found in 76 (31.9%) patients, at the patellar attachment of infrapatellar ligament in 87 (36.3%) patients, and no enthesitis at the tibial attachment of infrapatellar ligament were detected.
Conclusions: Enthesitis at the quadriceps and infrapatellar ligament represent a common ultrasonographic finding in patients with longstanding KOA, and significantly associated with low knee function.
Disclosure of Interest: None declared
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SAT0496 SAFETY OF DIACEREIN IN PATIENTS WITH OSTEOARTHRITIS – A REAL WORLD EXPERIENCE WITH UNEXPECTED RESULTS

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Background: Osteoarthritis (OA) is a common joint disorder and may occur in any synovial joint in the body, the condition is common in hands, knees, hips and spine. Diacerein is a antraquinone derivate has shown the inhibition of cytokine interleukine 1-B (1). A Cochrane review published in in 2014 showed that diacerein could be effective for this condition, however the most frequent adverse event with this medication was diarrhea compared to placebo RR 3.52 (95% CI 2.42 to 5.11) or other symptomatic slow acting drugs for OA 3.20 (95% CI 1.58 to 6.49) (2).
Objectives: To describe the real-world safety of Diacerein in patients with OA in a specialized center in Bogotá, Colombia.
Methods: We performed a cross-sectional study; patients with confirmed criteria of osteoarthritis and treated on a regularly basis with Diacerein were included. Patients were followed during a 18 month period. Adverse events were classified according the Common Terminology Criteria for Adverse Events (CTCAE) of the World Health Organization. Descriptive epidemiology for continuous variables, measure of central tendency and dispersion for qualitative and categorical variables through percentages and averages were calculated, we analyzed bi-variated correlations with X2 test.
Results: 1278 patients meet inclusion criteria; mean age was 62 year ± 10 years. 88% were female and 12% male, due to our patient's condition 80% of them were polimedicated. 93% of our patients received diacerein in usual dose of 100 mg daily and remaining 7% in a 50 mg day dose. Regarding safety 7.5% (n=96) of our patients reported any event adverse, the most frequent event was diarrhea with 50%, followed by nausea and abdominal disturbances among others. According to the CTAE classification the events adverse were mild 98% and only 2% severe; that means only 0.075% of total of patients receiving Diacerein had severe AE. On the other hand, correlation between adverse events and polymedication were statistical significant (P=0.000). For this reason we consider that AE such as diarrhea can be attributed more to patients' polymedication than diacerein.
Conclusions: This evidence showed a low proportion of patients with adverse events taking Diacerein; also most of these patients were polymedicated giving as a result a higher risk of having an adverse event. When we compared our results to other studies diarrhea was the most frequent event, followed by nausea, but only a very low proportion of patients were forced to discontinue medication. It is important to continue following patients that take diacerein in order to report its true safety and effectiveness.
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Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.5272

SAT0497 WHAT ARE THE PATIENTS' EXPERIENCE, NEEDS AND EXPECTATIONS IN HAND OSTEOARTHRITIS? A QUALITATIVE EVALUATION

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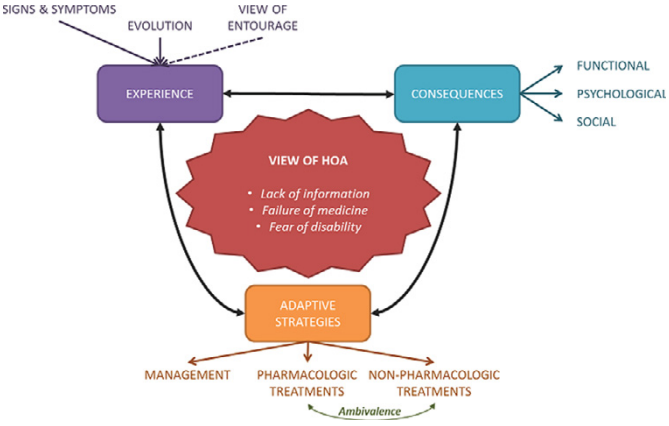
Background: The objective of this study was to evaluate the patients' experience and needs with HOA, in order to establish a therapeutic education program for HOA patients.
Objectives: As the subject was about descriptive, not quantifiable elements, qualitative methodology was chosen. Patients were submitted to individual semi-directive interviews. Verbatim were analyzed following the grounded theory until saturation of data.
Methods: Twelve HOA patients accepted to participate to the study. There were 10 women and 2 men, aged 45 to 79 years. Body-mass indexes varied from 18.7 to 31.6 kg/m^2. Clinical and radiological severity of HOA varied among patients.
They provided data on the experience of HOA, which is influenced by clinical and functional signs and the evolution of the disease. Pain and deformity are the main clinical signs, and lead to severe functional impairment. The functional, psychological, social consequences of HOA also have an impact on the patient experience. Patients develop adaptive strategies, mainly recourse to medical management, and pharmacological and non-pharmacological therapies. The needs of HOA patients were also explored, and three main ideas emerged. First, they want to be better informed on HOA. Second, they have a feeling of failure of conventional medicine, and often use alternative medicines. Third, the fear of disability with the course of the disease is very strong. They have difficulty accepting pharmacological treatments, but often do not realize the therapeutic nature of non-pharmacological treatments.
Results: The main concerns of HOA patients are: information, non-pharmacological treatments and evolutionary risks. These themes should be included in the development of therapeutic education programs for HOA.



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[1] We thank Pr François Rannou, Pr Pascal Richette and Pr Eric Roulot for providing access to HOA consultation in their centers for recruitment. We thank Dr Laurence Baumann-Coblenz for her advice in qualitative methodology.
Acknowledgements: We thank Pr François Rannou, Pr Pascal Richette and Pr Eric Roulot for providing access to HOA consultation in their centers for recruitment. We thank Dr Laurence Baumann-Coblenz for her advice in qualitative methodology.
Disclosure of Interest: None declared
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SAT0498 THE PERFORMANCE OF URINARY COLLAGEN TYPE II C-TELOPEPTIDE (UCTX-II) IN KNEE OSTEOARTHRITIS: A META-ANALYSIS

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Background: Among the currently available biochemical markers for osteoarthritis (OA), urinary collagen type II C-telopeptide (uCTX-II) is one of the most frequently investigated markers[1]. Much research has been performed into the performance of uCTX-II, but most of it in relatively small cohort studies[1]. Therefore, we performed a meta-analysis to summarize uCTX-II studies in a quantitative way.
Objectives: To perform a meta-analysis of the performance of uCTX-II as a biomarker for diagnosing knee osteoarthritis (KOA) and its association with radio-

graphic KOA severity. Furthermore, to look for patient and study characteristics that determine uCTX-II performance.

Methods: Medline and Embase databases were searched for studies into uCTX-II levels in adult subjects with radiographic KOA according to the Kellgren and Lawrence (K&L) classification system. uCTX-II levels were compared between subjects with KOA K&L ≥2 versus healthy control subjects and between subjects with KOA K&L 2 versus K&L 3–4 (i.e. moderate vs severe KOA). Controls were either selected based on lack of knee symptoms, based on K&L score, or were randomly selected from the general population. Differences between KOA subgroups were expressed as standardized mean differences (SMD). Subgroup analyses were performed to compare uCTX-performance between genders, ethnicities, and large and small studies. Differences between subgroups were considered relevant when SMDs differed >25% between groups.

Results: 2035 Studies were screened for eligibility, of which ten studies were included. A moderate pooled SMD of 0.52 (confidence interval (CI): 0.40–0.65, P<0.0001) was found for subjects with KOA K&L ≥2 versus controls, based on ten SMDs. For K&L3–4 versus K&L2 a moderate pooled SMD of 0.47 (CI: 0.32–0.63, P<0.0001) was found, based on five SMDs. No indications for publication bias were identified using funnel plots. Subgroup analyses of the K&L ≥2 versus control comparison showed that uCTX-II performs better in women as compared to men and in Caucasian subjects as compared to other ethnicities. Study size did not influence the pooled SMD. Subgroup analysis was considered infeasible for the K&L 2 versus K&L 3–4 comparison due to a limited number of studies.

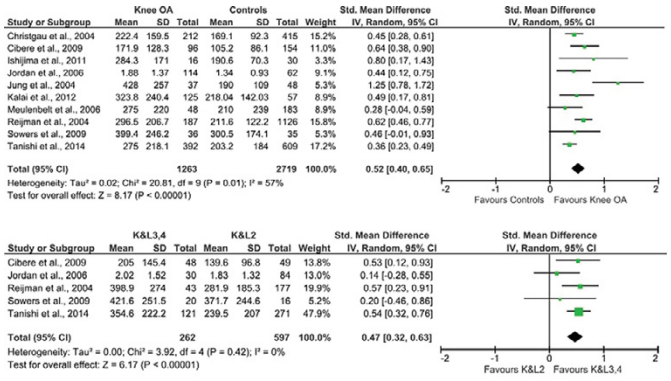

Figure 1: Forest plots for the comparisons of uCTX-II levels between subjects with radiographic KOA and controls and between subjects with KOA K&L3,4 and K&L2.

Conclusions: This is the first meta-analysis of uCTX-II performance in subjects with radiographic KOA. It appeared that uCTX-II levels can distinguish with moderate strength between radiographic KOA subjects and controls. Moreover, uCTX-II levels are consistently increased in severe versus moderate radiographic KOA. Female gender and Caucasian ethnicity were found to enhance uCTX-II performance in distinguishing radiographic KOA from controls. Yet, the number of studies was relatively small and criteria for KOA and control subjects differed between studies.

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SAT0499 IDENTIFICATION OF BIOCHEMICAL PHENOTYPES IN KNEE OSTEOARTHRITIS: LONGITUDINAL DATA FROM THE FNIH OA BIOMARKER CONSORTIUM

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Background: It is hypothesized that patients with knee osteoarthritis (OA) can be classified into different phenotypes. Knowledge of these phenotypes may contribute to developing effective targeted treatment strategies.

Objectives: To identify different longitudinal phenotypes of knee OA using biochemical markers and to compare these phenotypes with regard to radiographic joint space loss (JSL) and/or pain progression.

Methods: Baseline, 1-year, and 2-year biochemical marker data from the FNIH OA Biomarker Consortium were used. This consortium is a nested case-control study of 600 subjects with one symptomatic index knee showing radiographic OA changes of Kellgren and Lawrence grade 1 to 3[1]. Subjects were classified as either JSL progressors, pain progressors, JSL+pain progressors, or non-progressors according to predefined criteria (pain progression=persistent increase in WOMAC pain≥9 points (0–100 scale) from baseline to 2, 3 or 4 years, JSL progression=decrease in JSW≥0.7mm from baseline to 2, 3 or 4 years).
Biochemical markers included in the current analysis were sCTX-I, uαCTX-I, uβCTX-I, sNTX-I, uCTX-II, sCPII, sC2C, sC1,2C, sColl2–1 NO2, sCOMP, sHA, and sMMP (u=urinary, s=serum). First, using principal component analysis (PCA), the individual markers were reduced into a number of clusters of markers (components) that may represent common underlying domains. Second, a hierarchical cluster analysis (HCA) was performed to differentiate between longitudinal courses (phenotypes) of these marker clusters. The optimum number was determined from the additive value of each newly identified phenotype as compared to already identified phenotypes. Third, these longitudinal phenotypes were compared with regard to percentages of patients in each of the JSL and/or pain progression categories.

Results: PCA showed an optimal solution of three components. Looking at the markers that loaded maximally onto each of the components, they were interpreted as cluster of bone (sCTX-I, uαCTX-I, uβCTX-I, sNTX-I, uCTX-II), cartilage (sCPII, sC2C, sC1,2C, sColl2–1 NO2), and synovial (sCOMP, sHA, and sMMP) metabolism, respectively. HCA revealed an optimum of seven longitudinal phenotypes. Based on the relative predominance of the component(s) throughout follow-up, phenotypes were named “high bone”, “high cartilage”, “high synovium”, “low cartilage”, “low synovium”, “low bone, cartilage and synovium” and “low bone and high synovium” phenotype, respectively (Figure 1, dendrogram and heatmap). Phenotypes differed with regard to percentages of patients in JSL and/or pain progression categories (Figure 1, pie charts) as well as other demographic, clinical, and radiographic parameters (data not shown).

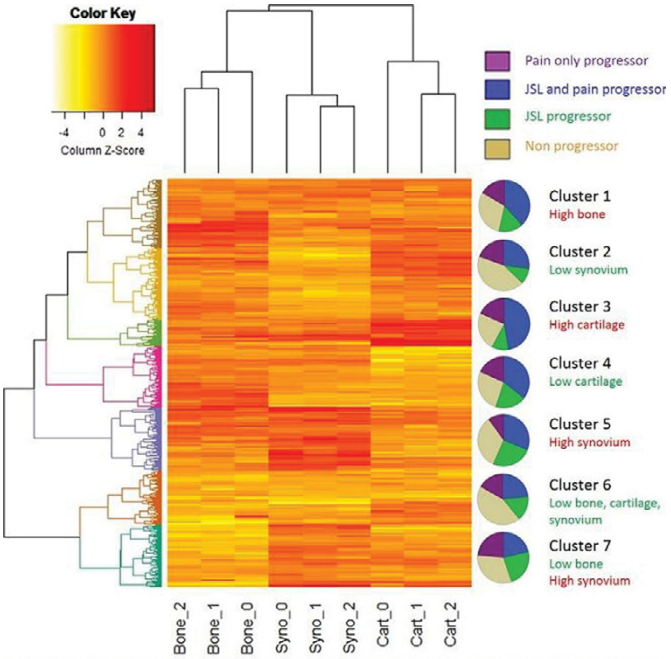

Figure 1: Heatmap depicting scores for the bone (bone), synovium (syno), and cartilage (cart) component for individual knee OA patients at baseline (_0), 1 year (_1), and 2 years (_2). Patients were classified into seven phenotypes using HCA, represented by the dendrogram at the left side. Percentages of subjects in the pain, JSL, pain+JSL, and no progression subgroups in each of the phenotypes are represented in the pie charts at the right side.

Conclusions: Seven longitudinal phenotypes of knee OA could be identified based on biochemical markers representing bone, cartilage and synovial metabolism. These phenotypes showed relevant differences in other characteristics, such as JSL and/or pain progression.

References:

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Disclosure of Interest: None declared

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SAT0500 SLEEP DISTURBANCE, KNEE INFLAMMATION, AND SYMPTOMS IN KNEE OSTEOARTHRITIS

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Background: Sleep disturbance has been shown to contribute to systemic inflammation, as well as increased pain sensitization. The role of sleep disturbance in knee osteoarthritis (OA) has not been established. Sleep disturbance may be an aggravating contributor to and/or a consequence of knee OA symptoms, with inflammation serving as a potential mediator.

Objectives: To compare knee symptoms over nine years of follow-up by