DISEASE BURDEN IN OSTEOARTHRITIS (OA) IS SIMILAR TO RHEUMATOID ARTHRITIS (RA) FROM THE PATIENT’S PERSPECTIVE, SLIGHTLY HIGHER IN RA AT PRESENTATION, SIMILAR ONE YEAR LATER, AND SLIGHTLY HIGHER IN OA TWO YEARS LATER AT ONE PRIVATE PRACTICE SETTING

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Background: Disease burden traditionally has been regarded as considerably greater in rheumatoid arthritis (RA) versus osteoarthritis (OA). However, recent reports of cross-sectional data indicate similar disease burden in OA vs RA according to MDHAQ/RAPID3 (multidimensional health assessment questionnaire/routine assessment of patient index data). One concern is that these findings may reflect only better treatment for RA, and initial disease burden may be considerably higher in RA vs OA.

Objectives: To analyze disease burden in patients with OA vs RA at baseline and 1- and 2-year follow-up according to MDHAQ/RAPID3 scores in routine care at a single rheumatologist private practice site.

Methods: All patients seen in routine care at this site complete an MDHAQ at each visit in the waiting area prior to seeing the rheumatologist. The MDHAQ includes three 0-10 scores for physical function, visual analogue scale (VAS), and patient global VAS, compiled into a 0-30 RAPID3, as well as 0-10 fatigue VAS, and 0-48 self-report painful joint count scores. Mean MDHAQ scores were compared in OA versus RA patients at 1 visit and visits 1 and 2 years later, using t tests, adjusted for age and body mass index (BMI) using analysis of variance (ANOVA).

Results: Among 101 OA and 175 patients with RA, at first visit, all MDHAQ scores except pain VAS were statistically significantly higher in RA vs OA, e.g., mean 0-30 RAPID3 was 11.9 in OA and 13.7 in RA. However, none of these differences appeared clinically significant (Table). After 1 year, all scores were improved, but more in RA vs OA patients (Table). e.g., mean RAPID3 of 11.5 in OA and 10.9 in RA; no differences between OA and RA were statistically or clinically significant. After 2 years, mean RAPID3 was 11.0 in OA vs 9.0 in RA, indicating continued improvement in RA but little change in OA. All scores other than fatigue VAS were higher in OA, including the self-report painful joint count. Differences between OA and RA were explained only by age and BMI.

Table: Mean MDHAQ scores in patients with primary OA or RA at 1 visit, and 1 or 2 years later

<table>
<thead>
<tr>
<th>Measure scores at</th>
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<td>OA</td>
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<tr>
<td>4 patients</td>
<td>101</td>
<td>175</td>
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<td>49</td>
</tr>
<tr>
<td>RAPID3 (0-30)</td>
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<td>11.5</td>
<td>10.9</td>
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</tr>
<tr>
<td>Function (0-10)</td>
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<td>0.61</td>
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<td>0.72</td>
</tr>
<tr>
<td>Fatig (0-10)</td>
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<td>4.9</td>
<td>4.3</td>
<td>4.7</td>
</tr>
<tr>
<td>MDHAQ (0-10)</td>
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Conclusion: Most MDHAQ/RAPID3 scores were higher in RA than in OA at the first visit, indicating greater severity of RA, although OA was almost as severe. One year later, scores were similar with no statistically significant differences. Two years later, most scores were higher in OA. These findings may reflect superior treatments for RA vs OA. At an individual level, disease burden in OA may appear to be lower, different from what was seen as RA, and becomes greater over the next 2 years, likely as a result of better treatment. The severity of OA is underrated, suggesting a need for increasing resources for research toward better treatment for OA.

THU0449

EFFECT MODERATION OF ANALGESIC TREATMENT OUTCOMES BY DEPRESSION IN PERSONS WITH OR AT-RISK FOR SYMPTOMATIC KNEE OSTEOARTHRITIS

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Background: Depression often accompanies knee osteoarthritis (OA), exacerbates pain severity, and may negatively affect analgesic treatment outcomes.

Objectives: To determine whether depression moderates the effect of analgesics on pain severity in persons with or at-risk for symptomatic knee OA.

Methods: Participants (n=2059) were from the Osteoarthritis Initiative, with or at-risk for symptomatic knee OA, and had complete data on selected measures at baseline and four annual follow-up visits. Analgesic initiation (acetaminophen, non-steroidal anti-inflammatory drugs, opioids) was assessed at three annual follow-up visits in those who were not analgesic users at baseline. Depression was evaluated concurrent to assessment of analgesic use with the Center for Epidemiological Studies Depression (CES-D) scale using the corresponding CES-D screening threshold (CES-D score ≥ 16). Pain severity at the fourth annual follow-up visit was the outcome and measured with the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) pain scale (rescaled range = 0-100).

Results: Among 101 OA and 175 patients with RA, at first visit, all MDHAQ scores except pain VAS were statistically significantly higher in RA vs OA, e.g., mean 0-30 RAPID3 was 11.9 in OA and 13.7 in RA. However, none of these differences appeared clinically significant (Table). After 1 year, all scores were improved, but more in RA vs OA patients (Table), e.g., mean RAPID3 of 11.5 in OA and 10.9 in RA; no differences between OA and RA were statistically or clinically significant. After 2 years, mean RAPID3 was 11.0 in OA vs 9.0 in RA, indicating continued improvement in RA but little change in OA. All scores other than fatigue VAS were higher in OA, including the self-report painful joint count. Differences between OA and RA were explained only by age and BMI.

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Abbreviations: MDHAQ=multidimensional health assessment questionnaire, RAPID3=multidimensional health assessment routine assessment of patient index data, PATG1=patient global assessment, JC=joint count

Conclusion: Most MDHAQ/RAPID3 scores were higher in RA than in OA at the first visit, indicating greater severity of RA, although OA was almost as severe. One year later, scores were similar with no statistically significant differences. Two years later, most scores were higher in OA. These findings may reflect superior treatments for RA vs OA. At an individual level, disease burden in OA appears almost as great as in RA, and becomes greater over the next 2 years, likely as a result of better treatment. The severity of OA is underrated, suggesting a need for increasing resources for research toward better treatment for OA. Disclosure of Interest: Martin Bergman Shareholder of: Johnson and Johnson (parent company of Janssen), Consultant for: AbbVie, Amgen, BMS, Celgene, Genentech/Roche, Janssen, Merck, Novartis, Pfizer, and Sanofi/Regeneron, Mariam Riad: None declared, Theodore Pincus: None declared


Abstract THU0449 – Figure 1

Figure 1. Cumulative Effects (Treated vs. Untreated) of Analgesic Use on Pain Severity

By Depression Status

Table: WOMAC pain scores for non-depressed and depressed participants

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-Depressed</th>
<th>Depressed</th>
<th>Difference</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>1.36</td>
<td>1.36</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>1.36</td>
<td>1.36</td>
<td>0.00</td>
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Conclusion: Findings indicate a significantly greater one-year treatment effect of analgesic use that lowered pain severity in persons with or at risk for symptomatic knee OA who also had depression. Thus, knee OA patients with depression may derive more benefit from analgesic treatment for chronic pain than non-depressed patients, perhaps because their pain is undertreated in routine clinical practice.

Acknowledgement: This study was supported by the Rheumatology Research Foundation’s Scientist Development Award.


THU0450 QUALITY OF LIFE OF PATIENTS WITH A COMBINATION OF SARCOPENIA AND OSTEOARTHRITIS OF LOWER EXTREMITY

Yuliya Safonova1, Evgeniy Zotkin2, 1Northwestern State Medical University named after I.I. Mechnikov, St. Petersburg, Russian Federation; 2Research Institute of Rheumatology named after V.A. Nasonova, Moscow, Russian Federation

Background: In accordance with the updated criteria of the EWGSOP (2018), sarcopenia is a muscle disease (muscle failure) rooted in adverse muscle changes that accrue across a lifetime [1]. Sarcopenia and osteoarthritis significantly affect the self-esteem quality of life which is associated with a decrease in muscle mass and muscle performance, falls, joint pain [2]. In 2015, the SarQoL questionnaire (Sarcopenia and Quality of Life, www.sarqol.org) was developed, specific to patients with sarcopenia. Improvement of quality of life should be the priority of any interventions to prevent and treat osteoarthritis and sarcopenia in the ageing population [3].

Objectives: Perform quality of life analysis in patients with osteoarthritis and sarcopenia.

Methods: Prospective study of 159 women, mean age 74 ± 13.3. Sarcopenia was diagnosed according to the algorithm proposed by the European Working Group on Sarcopenia in Older People (EWGSOP, 2010). Life quality assessment was performed using EQ-5D questionnaires and a specific questionnaire in patients with sarcopenia SarQoL.

Results: 31.45% of people with OA older than 65 years had sarcopenia. The results of the study showed a statistically significant decrease in overall health on the questionnaire EQ-5D in patients with sarcopenia compared with patients without sarcopenia (0.48 ± 0.22 points and 0.74 ± 0.22 points, respectively, p <0.01) and no differences according to the EQ-VAS scale in the studied groups (p>0.05). The decrease in the general health status of EQ-5D in patients with OA sarcopenic compared with non-sarcopenic patients with a restriction of the usual daily activities: in 70% (95% CI: 55.4-82.1) and 52.3% (95% CI: 42.5-61.9) respectively, (p<0.01). In patients with OA, reduced global SarQoL in sarcopenic subjects compared to non-sarcopenic ones: 50.65±14.23 vs. 75.10±14.46, p<0.001. Significantly lower scores for all domains were found in patients with OA sarcopenic compared with non-sarcopenic patients (p<0.001).

Conclusion: In patients with OA sarcopenic, the quality of life is worse than that of non-sarcopenic due to a decrease in habitual daily activities, probably associated with low muscle strength.

REFERENCES:

Disclosure of Interests: None declared


THU0451 CHONDROTIN SULFATE UREA ADMINISTRATION AND INCIDENCE OF CANCER: A LONGITUDINAL ANALYSIS OF THE OSTEOARTHRITIS INITIATIVE DATA

Ivan Shinsky, Valery Shinsky. FEDERAL STATE BUDGETARY SCIENTIFIC INSTITUTION “RESEARCH INSTITUTE OF FUNDAMENTAL AND CLINICAL IMMUNOLOGY” (RIFIC), Laboratory of Clinical Immunopharmacology, Novosibirsk, Russian Federation

Background: Chondroitin sulfate (CS) is widely used nutritional supplement for the treatment of osteoarthritis. There is growing in vitro evidence that CS may play a role in oncogenesis and metastasis of several solid tumors including melanoma [1] and breast cancer [2]. The data evaluating pro-oncogenic effects of CS in humans are lacking.

Objectives: To assess influence of CS use on incidence of cancer.

Methods: For the current study we used 6-year longitudinal data obtained from the Osteoarthritis Initiative (OAI) progression (n=1390) and incidence (n=3284) subcohorts, which are publicly available at https://oai.nih.gov. To reduce the risk of bias, only participants who did not take CS at baseline were included in the analysis (a “new-user” design). Incident cancer was defined as an occurrence of self-reported cancer, other than skin cancer, leukemia or lymphoma. The information on self-reported cancer was collected from the Charlson Comorbidity Index. CS users with cancer were defined using the following criteria (1) a person who used CS for at least 6 months (2) chondroitin use was at least 1 year before the incident self-reported cancer. For CS users without a cancer, the duration of CS use had to be at least 6 months. All other participants were classified as non-users. To examine the cancer risk for CS users compared to non-users, we calculated the incidence rate ratios (IRRs), adjusting for age (2-year age groups), using the Mantel-Haenszel test.

Results: A total of 3167 participants neither having cancer nor taking CS at baseline were included in the analysis. There were 570 (21.95%) new users of CS. We identified 160 (6.2%) and 37 (6.5%) cases of incident self-reported cancer in the non-users and users groups, respectively. The adjusted IRR for the association between CS use and cancer was 0.22 (95% CI 0.77-1.62) which was not statistically significant (p=0.64).

Conclusion: CS use was not associated with excess overall incidence of self-reported cancers. Nonetheless, given the strong in vitro evidence of CS pro-oncogenic effects on several types of tumors there is a need for further epidemiological data evaluating CS effects on specific kinds of cancer.

REFERENCES:

Disclosure of Interests: None declared


THU0452 PREVALENCE OF AXIAL OSTEOARTHRITIS IN SPAIN: EPISER-2016

Maite Silva-Díaz1, Victor Quevedo Vila2, Daniel Seoane Mato3, Sagarno Bustabad2, Francisco J. Blanco1, Grupo de Trabajo Proyecto Episier20161. Complejo Hospitalario Universitario A Coruña, Instituto de Investigación Biomédica A Coruña (INIBIC), A Coruña, Spain; 2Hospital Comarcal de Monforte de Lemos, Lugo, Lugo, Spain; 3Unidad de Investigación, Sociedad Española de Reumatología, Madrid, Spain; 4Hospital Universitario de Canarias, Canarias, Spain

Background: Osteoarthritis (OA) is a heterogeneous group of diseases with common clinical and radiographic manifestations involving the peripheral and axial skeletal. OA is the most prevalent rheumatic disease however, there are very few publications focused in axial OA. In 2016, the Spanish Society of Rheumatology (SER) started a population descriptive study (EPISER 2016) to analyze the prevalence of 13 rheumatic diseases