**Conclusion:** Our clinical trial offers preliminary evidence on the superiority of Kinesio-Taping in the treatment chronic back pain compared to placebo concerning the reduction of pain and disability. Thus, it can be used as a complementary method in chronic non-specific low back pain.

**Table 2. Primary and secondary outcomes in the Kinesio-Taping and placebo group.**

<table>
<thead>
<tr>
<th>Taping groups (n=22)</th>
<th>Placebo groups (n=24)</th>
<th>ANCOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>Day 12</td>
<td>4 weeks</td>
</tr>
<tr>
<td>OCD</td>
<td>56.1±8.5</td>
<td>54.1±9.5</td>
</tr>
<tr>
<td>VAS of pain</td>
<td>7.3±1.3</td>
<td>7.4±1.2</td>
</tr>
<tr>
<td>VAS of functional disability</td>
<td>4.7±1.6</td>
<td>5.2±1.7</td>
</tr>
<tr>
<td>Roland Morris</td>
<td>7.4±1.6</td>
<td>8.2±1.7</td>
</tr>
</tbody>
</table>

**Disclosure of Interests:** None declared

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**THU0567 HIP ABDUCTORS STRENGTH AND TRUNK, PELVIS, HIP AND KNEE FRONTAL PLANE KINEMATICS ANALYSIS DURING SINGLE-LEG SQUAT IN INDIVIDUALS WITH AND WITHOUT PATELLOFEMORAL OSTEARTHRITIS**

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**Background:** Previous studies have observed that individuals with patellofemoral oral pain (PFP) have decreased hip abduction torque, as well as increased hip adduction and knee abduction during activities with unilateral weight bearing. Considering that, a significant number of patients with patellofemoral osteoarthritis (PFOA) have a previous history of PFP, it is speculated that the mechanical causes of PFP and PFOA may be similar. However, although alterations in hip muscle strength and lower limb kinematics during various functional activities have been reported in patients with PFP, they have not been explored in subjects with PFOA.

**Objectives:** The objectives of this study were to compare the hip eccentric abductors torque and the trunk, pelvis, hip, and knee frontal plane kinematics in subjects with and without PFOA isolated during the single-leg squat.

**Methods:** This is a cross-sectional study. The volunteers were divided into two groups: control group (CG - healthy individuals) and PFOA group (PFOAG - individuals with PFOA grade II or III). Eccentric peak torque of the hip abductors was evaluated using an isokinetic dynamometer Biodex Multi-Joint System 3, at angular speed of 30°/s. Trunk, pelvis, hip and knee kinematics were recorded during the single-leg squat using a 6-camera, 3-dimensional motion-analysis system. The t-test Student was used to compare the variables between the groups. The significance level was set at 5% for all analyses (p ≤ 0.05).

**Results:** The CG was composed by 12 participants (41.7% women). PFOA had 9 participants (44.4% women). Age (p = 0.1), height (p = 0.9) and body mass (p = 0.2) showed homogeneity between groups. The t-test Student was used to compare the variables between the groups. The significance level was set at 5% for all analyses (p ≤ 0.05).

**Disclosure of Interests:** None declared

DOI: 10.1136/annrheumdis-2020-eular.2979

**THU0568 EFFECTIVENESS OF FOOT ORTHOSIS TO PROMOTE PHYSICAL ACTIVITY FOR PATIENTS WITH CONCURRENT RHEUMATOID ARTHRITIS AND SARCOPENIA**

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**Background:** Sarcopenia is a progressive systemic skeletal muscle disorder associated with an increased likelihood of adverse outcomes including physical disability, falls, and mortality. The muscle mass of patients with rheumatoid arthritis (RA) is lower than that of age-matched healthy individuals, and a high prevalence rate of sarcopenia has been reported. In particular, foot deformities may increase the prevalence rate of sarcopenia because of inactivity due to foot pain on walking. Treatment with a foot orthosis (FO) can reportedly reduce pain; however, whether a FO can resolve inactivity and sarcopenia is unclear.

**Objectives:** To elucidate the effectiveness of a FO on physical activity and sarcopenia in patients with RA.

**Methods:** Thirty patients with RA with foot deformities were enrolled from April 2017 to December 2019. Sarcopenia was diagnosed using the algorithm of the European Working Group on Sarcopenia in Older People, and the cut-off values of the Asian Working Group for Sarcopenia were applied. We also collected the clinical variables of patients with concurrent RA and sarcopenia who continued to use a FO for 6 months. The primary outcome was physical activity determined by the International Physical Activity Questionnaire. The secondary outcomes were foot pain measured with a visual analog scale; activities of daily living (ADL) measured with the Health Assessment Questionnaire; and body mass index, body fat percentage, and the skeletal muscle mass index measured with a body composition device. The clinical variables were compared between baseline and 6 months after continuous treatment with a FO.

**Results:** The prevalence rate of sarcopenia was 76.6% (23/30) in patients with RA who continued to use the FO for 6 months. Table 1 shows outcomes at baseline and after 6 months of treatment with a FO. The only clinical variable that showed a significant difference was foot pain.

**References:**


Table 1. Outcomes of 6-month treatment with FO

<table>
<thead>
<tr>
<th>Physical activity</th>
<th>Baseline</th>
<th>6 months</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>132 (66, 594)</td>
<td>594 (396, 2376)</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>0 (0, 0)</td>
<td>0 (0, 0)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>3.2 (0, 0)</td>
<td>0.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.6 (3.1, 7.4)</td>
<td>2.8 (1.1, 4.7)</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>VAS score</td>
<td>1.5 (1.1, 2.3)</td>
<td>1.1 (0.9, 1.5)</td>
<td>0.07</td>
</tr>
<tr>
<td>ADL</td>
<td>21.4 (20.7, 22.7)</td>
<td>20.7 (19.3, 22.1)</td>
<td>0.89</td>
</tr>
<tr>
<td>BMI, kg/m²</td>
<td>31.1 (24.2, 37.6)</td>
<td>32.9 (26.3, 36.5)</td>
<td>0.82</td>
</tr>
<tr>
<td>BF%</td>
<td>5.2 (4.8, 5.3)</td>
<td>5.2 (5.0, 5.2)</td>
<td>0.61</td>
</tr>
<tr>
<td>SMI, kg/m²</td>
<td>0.32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results:

The prevalence rate of sarcopenia in patients with RA with foot deformities was much higher than previous reported. However, 6 months of treatment with a FO not only reduced foot pain but also maintained physical activity and muscle mass. Physical therapy has recently been recommended for patients with inflammatory arthritis. Physical activity and muscle mass of patients with RA and concurrent foot deformities may be increased by combining physical therapy with orthotic treatment.

Conclusion:

The prevalence rate of sarcopenia in patients with RA with foot deformities was much higher than previous reported. However, 6 months of treatment with a FO not only reduced foot pain but also maintained physical activity and muscle mass. Physical therapy has recently been recommended for patients with inflammatory arthritis. Physical activity and muscle mass of patients with RA and concurrent foot deformities may be increased by combining physical therapy with orthotic treatment.

References:


Acknowledgments:

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Disclosure of Interests:

None declared.

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THU0569

PHYSICAL ACTIVITY IN AXIAL SPONDYLOARTHRITIS AND RHEUMATOID ARTHRITIS: A CROSS-SECTIONAL STUDY IN A SOUTH-EAST ASIAN COHORT

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Background:

Axial spondyloarthritis (AxSpA) and rheumatoid arthritis (RA) are two common rheumatic diseases that can result in joint damage and deformities, leading to reduced physical function and quality of life. Physical activity (PA) and exercise have been shown to improve general well-being and reduce cardiovascular risk, especially in patients with RA.

Objectives:

This study aims to examine the patterns of PA in a multi-ethnic South-East Asian cohort.

Methods:

This was a cross-sectional study conducted between May 2016 and Jan 2017. Consecutive patients with AxSpA and RA were recruited at an outpatient rheumatology clinic at Singapore General Hospital, the largest tertiary hospital in Singapore. Controls were based on a previous cross-sectional study.

PA was assessed using the Global Physical Activity Questionnaires (GPAQ) developed by the World Health Organization (WHO).

Results:

74 AxSpA and 69 RA patients were recruited and compared to 868 controls. AxSpA patients were younger (median age [IQR], 37.0 [25.3] years) and predominantly male (75.7%), while RA patients were the oldest (median age [IQR], 59.0 [16.5] years) and predominantly female (81.2%). BMI was similar between all three groups. RA patients had more comorbidities (such as hypertension, hyperlipidemia, diabetes mellitus) compared to AxSpA patients and controls.

All three groups had similar proportion of participants meeting WHO recommendations for PA (AxSpA = 77.0%, RA = 79.7%, controls = 83.1%, p=0.35) and had lower IQR time (95% CI) of PA per day (AxSpA = 50.07 [107.1] vs 57.9 [122.9] vs 51.4 [94.3], p=0.93). More AxSpA patients had a high level of sedentary activity compared to RA or controls (AxSpA = 56.8%, RA = 23.2%, controls = 72%, p < 0.01). When comparing AxSpA and RA patients with inactive disease or in remission versus active disease, levels of PA did not differ between the 2 groups (p=0.33).

Conclusion:

Levels of PA did not differ significant between AxSpA and RA patients compared to the general population, and disease activity levels did not affect the level of PA in patients with AxSpA and RA. Of note was that patients with AxSpA and RA demonstrated higher levels of sedentary activity compared to the general population. Improving PA and decreasing sedentary activity could reduce the cardiovascular risk, especially in patients with RA.

References:


Disclosure of Interests:

Andrew Khor: None declared.

Table 1.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Baseline</th>
<th>6 months</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical activity</td>
<td>132 (66, 594)</td>
<td>594 (396, 2376)</td>
<td>0.07</td>
</tr>
<tr>
<td>Walking, MET-min/week</td>
<td>0 (0, 0)</td>
<td>0 (0, 0)</td>
<td>1.00</td>
</tr>
<tr>
<td>Moderate, MET-min/week</td>
<td>0 (0, 0)</td>
<td>0 (0, 0)</td>
<td>0.32</td>
</tr>
<tr>
<td>Vigorous, MET-min/week</td>
<td>4.6 (3.1, 7.4)</td>
<td>2.8 (1.1, 4.7)</td>
<td>0.02</td>
</tr>
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<td>VAS score</td>
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<td>0.61</td>
</tr>
</tbody>
</table>

BACKGROUND:

Axial spondyloarthritis (AxSpA) and rheumatoid arthritis (RA) have significantly changed due to more efficient medication improving the course of the disease. Therefore, physical activity, participation, disease management and patient education are most important goals in rehabilitation of patients with RA.

Objectives:

The aim of this study was to evaluate the significance and impact of rehabilitation methods according to the subjective attitudes and views of experts and professionals in the field of RA. Opinions of members of the task force (TF) “Rehabilitation” of the Austrian Society of Rheumatology (ÖGR) were compared to the estimation of the other members of the ÖGR.

Methods:

All members of the ÖGR were invited to participate in an online survey to rate the impact of rehabilitation for patients with RA between 0 (no impact) and 10 (high impact). Besides sociodemographic and experience related data about the experts and professionals, two main issues were investigated: (1) Impact of rehabilitation related to specific interventions (2) Impact of rehabilitation methods for patients with RA according to different disease and treatment points.

Results:

129 members (50% male, 50% female) of the ÖGR participated in the online survey. 12 persons were members of the TF “Rehabilitation” of the ÖGR. 11 (8.6%) respondents were general physicians, 66 (51.6%) specialists in internal medicine with further expertise in rheumatology, 15 (11.5%) specialists in internal medicine, 14 (10.9%) specialists for physical medicine with further expertise in rheumatology, 2 (1.6%) specialists in orthopaedics, 13 (10.2%) health professionals and 7 (5.5%) persons were from other profession categories such as researchers for example. The majority of respondents (80%) worked already