Background: Ankylosing spondylitis is thought to cause balance problems. One component of balance is core stability. Core stability can be defined as the ability of the lumbo-pelvic-hip complex to control the trunk in response to disturbances generated by movement of the limbs, or other perturbations. There is limited literature about balance problems in AS. However there is no study investigating the effect of AS on core stability.

Objectives: The aim of this study was to investigate whether there is a difference in balance and core stabilisation between patients with ankylosing spondylitis (AS) and healthy individuals.

Methods: 64 patients (40 male, 24 female) with AS and 64 healthy controls (39 male, 25 female) were included in this study. Demographic and physical characteristics (age, height, weight, body mass index) were recorded. Static and dynamic balance was evaluated with Biodex Balance System SD. Anteroposterior (AP), mediolateral (ML) and overall (OA) postural stability indices were obtained with bilateral stance (stable and unstable platform), single leg stance (stable platform). Also overall, forward, backward, right and left limits of stability were evaluated. For evaluation core stabilisation static and dynamic core endurance tests and hip strength assessment were used. Modified sit-up test for dynamic core endurance and four static endurance tests (flexor endurance, extensor endurance and lateral and abductor strength) recommended by McGill et al for static core endurance were used. Hip strength measurement were assessed by hand-held dynamometer.

Results: There were no significant differences between groups regarding to gender, age, height, weight, body mass index (p>0.05). Overall, anteroposterior and mediolateral indices for bilateral stance (stable platform) and left leg stance (stable platform) were statistically better in control group (p<0.05). All of the core endurance tests were statistically better in control group (p<0.05) table 1. Although all of the hip strength measurements were higher in control group than AS group, only statistically significant difference was found in hip abduction strength (p<0.05).

Conclusions: To our knowledge this is the first study that investigating core stability in AS patients. The findings of this study showed AS patients have reduced core endurance and hip abductor strength. According to our results AS has negative effect on bilateral stance, left leg stance postural stability and limits of stability.

REFERENCES:

Disclosure of Interest: None declared

chronic diseases. Most often PA is self-reported while measures of the aerobic capacity are more seldom measured in subjects with chronic pain.

**Objective:** To evaluate if self-reported aerobic capacity (aerobic capacity) in participants with chronic pain classified as regional or widespread and to compare the findings with a group that report no pain.

**Methods:** The 2016 FABQ was used to assess fear of falling in adults with knee OA.

**Results:** A smaller proportion of knee OA participants reported high levels of fear avoidance beliefs for falling compared to those with chronic pain (CWP: 42% women; CRP: 55% women). The group with CWP was slightly older than those with CRP (mean (SD) 57.0 (7.6) vs. 61.9 (6.9) years, p<0.02). The FABQ group also had higher aerobic capacity (mean (SD) 2.2 (0.5) i/min vs. 2.6 (0.6) i/min, p<0.03), and a larger proportion was classified as having low aerobic capacity (CWP 71%, CRP 7% and NCP 10%, p<0.04). The proportion of MVPArec did not differ between the groups; CWP 70%, CRP 81% and NCP 74% (p<0.05). There was neither a difference between the groups in BMI, RPE or in sitting hours/week (p>0.6). However, differences were found in the FABQ where in the PA scale those with CRP had worse scores compared with NCP (mean (SD) 11.2 (7.3) vs. 6.0 (6.0), p<0.001), the difference between CWP and mean (SD) 8.9 (6.7) and NCP was p=0.06. In the work subscale (5 of the FABQ), CWP had worse scores compared with CRP (mean (SD) 18.9 (15.7) vs. 10.0 (12.5), p=0.002) and CRP had worse scores compared to those with NCP (mean (SD) 10.0 (12.5) vs. 6.5 (9.1), p<0.001).

**Conclusions:** In this sample of subjects with chronic pain or no pain, having widespread pain tended to affect the aerobic capacity negatively while self-reports of fear avoidance beliefs did not differ between CWP and CRP. Fear avoidance in relation to physical activity and especially in relation to work was more noticeable in subjects with chronic pain compared to those with no pain. Measures of aerobic capacity and information of fear avoidance beliefs might help health professionals to better tailor the non-pharmacological treatment for subjects with chronic pain.

**Disclosure of Interest:** None declared

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**SAT0739-HPR OCCUPATIONAL EXPOSURE TO PESTICIDES INCREASES THE RISK OF RHEUMATOID ARTHRITIS: RESULTS FROM THE MALAYSIAN POPULATION-BASED CASE-CONTROL STUDY**


**Disclosure of Interest:** All authors have declared no conflicts of interest.

**Background:** Several studies have suggested farming occupation with exposure to pesticides as risk factor for rheumatoid arthritis (RA).

**Objective:** We investigated the association between pesticides exposure and risk of RA subsets in the Malaysian population.

**Methods:** Data from the Malaysian Epidemiological Investigation of Rheumatoid Arthritis (MyEIRA) population-based case-control study involving 1055 early RA cases and 2057 age, sex, and racial matched controls were analysed. All study subjects answered a structured questionnaire on a broad range of issues including occupational exposures to pesticides. The self-reported information on ever/never occupationally exposed to pesticides was used to estimate the risk of developing ACPA-positive and ACPA-negative RA. Association between pesticide exposure and the HLA-DRB1 shared epitope (SE) was evaluated.

**Results:** The proportion of ACPA positivity in the RA patients was 64.4% and 1.9% in the normal controls. The prevalence of HLA-DRB1 SE alleles in RA patients was 40.2% and 15.8% in the normal controls. Our data demonstrated that occupational exposure to pesticides was significantly associated with an increased risk of developing RA in the Malaysian population (OR 2.31, 95% CI 1.12–4.73, p=0.03). The association between occupational exposure to pesticides and risk of RA was observed with ACPA-positive RA (OR 3.10 95% CI 1.49–6.47, p=0.003), but not with ACPA-negative RA. A dramatically increased risk for ACPA-positive RA was seen in individuals who both exposed to pesticides occupationally and carried SE alleles (OR 28.06, 95% CI 3.58–220.09, p<0.0001).

**Conclusions:** This study demonstrates that occupational exposure to pesticides is associated with an increased risk of ACPA-positive RA in Malaysian population.

**REFERENCES:**