AB1672  SCREENING OF SYMPTOMS IN THE AT-RISK OF RHEUMATOID ARTHRITIS CZECH COHORT USING SYMPTOMS IN PERSONS AT RISK OF RHEUMATOID ARTHRITIS (SPARRA) QUESTIONNAIRE

Keywords: Autoantibodies, Rheumatoid arthritis

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Background: With growing knowledge about the course of rheumatoid arthritis (RA), the focus shifts to the pre-clinical phase. The presence of RA-associated autoantibodies e.g., anti-citrullinated protein antibodies (ACPA) and rheumatoid factors (RF) increases up to 10 times the risk of developing RA compared to the common population. The positivity of these autoantibodies and multiple symptoms without clinical arthritis enable the characterization of individuals who are considered at risk for progression to RA. The “Symptoms in Persons at Risk of RA” (SPARRA) questionnaire was created to screen symptoms occurring in at-risk individuals. This questionnaire comprises 13 symptoms (joint pain, swelling and stiffness, burning and tingling sensations, numbness, changes in skin color over joints, muscle cramps, weakness, fatigue, emotional distress, concentration and sleep difficulties) and explores their duration, location, intensity and impact on daily activities.

Objectives: To explore the symptoms in our prospective observational cohort of individuals with arthralgia at-risk of RA (ARRA cohort) using the SPARRA questionnaire.

Methods: Individuals at-risk of RA, defined as having arthralgia without arthritis on the examination of 66/68 joints at baseline and being either ACPA+ and/or meeting the European Alliance of Associations for Rheumatology (EULAR) definition of clinically suspect arthralgia (CSA, having at least 3 out of 7 parameters), cross-sectionally filled out the SPARRA questionnaire. All individuals signed informed consent before study enrolment. Differences between ACPA+ and ACPA- individuals were analysed using Fisher’s exact test.

Results: The study included 77 at-risk individuals (75% were females) with a mean age of 48.08±12.62 years, symptom duration of 34.66±35.56 months with CRP 3.17±4.24 mg/l and 5.43±3.72 tender joints on examination, out of which 61% were ACPA+, 59% met the CSA definition, and 20% were both ACPA+ and met the CSA definition. The most frequent symptoms at the time of SPARRA completion were joint pain (97%), joint stiffness (63%), fatigue (82%), emotional distress (70%), sleep problems (66%), and joint swelling reported by the patient (65%). Joint stiffness (100% vs. 71%, p=0.0005), sleep problems (84% vs. 53%, p=0.0067), and concentration difficulties (69% vs. 29%, p=0.0010) were more prevalent in ACPA- individuals than in ACPA+ group. Similarly, the intensity (none/mild vs. moderate/severe) of fatigue (p=0.0197), emotional distress (p=0.0270), and sleep problems (p=0.0054) was higher in ACPA- group, along with emotional distress (p=0.0136) and sleep problems (p=0.0407) being of higher impact on daily activities in ACPA- individuals. Joint pain was most frequently described as aching, and localized in fingers with up to mild severity and with none to a small impact on daily activities in both groups. The pain was intermittent, typically with periods without any symptoms in the ACPA+ group and always with some residual symptoms in the ACPA- group (p=0.0015). When assessing the most prevalent symptoms in ACPA- individuals, joint stiffness appeared more frequently in ACPA+ individuals meeting the CSA definition compared to ACPA+ individuals not fulfilling the CSA criteria.

Conclusion: Symptoms of the at-risk individuals appeared more frequently and with higher intensity and impact on daily activities in ACPA- individuals, who as per the inclusion criteria, met the CSA definition, with joint pain being the most prevalent. The value of the SPARRA questionnaire in the assessment of the risk of arthritis development in at-risk individuals needs to be determined in further prospective studies.

REFERENCES:  


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AB1673  THE USE OF DIGITAL FOOT SCANNING (PELMATOGRAPHY) FOR IDENTIFICATION OF STANCE ABNORMALITIES IN A YOUNG HEALTHY POPULATION

Keywords: Work-related issues, Epidemiology, Health services research

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Background: Clinical evaluation of pes anatomy and abnormalities are rarely reported in rheumatology literature. Often deviations from normal are not evaluated, unless subsequent pathology and symptoms are overt. Foot symptoms may occasionally lead to overdiagnosis of seronegative arthropathies.

Objectives: This study aims to identify any foot abnormalities in a healthy young population of army recruits, using clinical and digital foot scanning – pelmatographic (PLM) examination.

Methods: One hundred and ten (M/F:65/54) of a total of 129 new army recruits of a Military Academy in Greece participated voluntarily in the study. Subjects' informed consent and proper ethical approvals were obtained. The study conducted according to Declaration of Helsinki. A small percentage (1.12%) reported short-term lower leg symptoms during vigorous athletic activities, the past five years. We used clinical evaluation of pes morphology on stance and compared to data obtained during the stance phase of examination using a 3400-sensors plantar pressure foot scan machine. Descriptive statistics were used for the statistical analyses.

Results: Agreement between clinical and pelmatographic observation was noted in 59.1% of subjects. In particular, clinical and pelmatographic normal pes was observed in 48.2% and 68.8% of subjects, respectively. High arched foot was observed in 23.6% and 17.2%, while flat foot in 23.6% and 9.7% respectively. There was no statistical difference between clinical and pelmatographic evaluation of high arched foot (chi-square test, p=0.815). Discrepancy between clinical and pelmatographic evaluation of flat feet was noted (p=0.04, OR=0.47, 95%CI:0.165-0.730). Finally, 37.3% of the participants presented foot pronation syndrome.

Conclusion: Prevalence of pes abnormalities are high and unattended in an otherwise healthy young population. These variations may predispose to future foot symptoms under specific circumstances. Digital foot pressure scanning may facilitate diagnosis and contribute to solution with foot orthotics.

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Disclosure of Interests: NIL.

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