THU0368

THE IMPACT OF PROFESSIONAL ACTIVITY IN ANKYLOSING SPONDYLITIS

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Background: The mechanical stress due to strenuous professional activity cannot be easily quantified, yet it may lead to a wide range of musculoskeletal complaints. In ankylosing spondylitis (AS) patients mechanic stress may lead to the occurrence and the aggravation of enthesitis (1) and a profession involving an intense physical strain is correlated with the radiologic progression (2). While studies regarding the professional activities in ankylosing spondylitis patients are focused on the disease's impact on the work capacity, the type of labor may also influence the disease progression (3).

Objectives: To assess the relationship between the professional activity in AS patients, disease activity and radiological changes.

Methods: We enrolled 193 patients with AS admitted in the Rheumatology Department of the "Sf. Apostol Andrei" Emergency Clinical County Hospital. Patient evaluation was performed by a rheumatologist. All the data obtained from the medical history, clinical examination, laboratory tests and imaging studies was recorded at the same date. Data regarding the professional history, type of labor involved was also recorded. The physical strain due to professional activity was done using the methodology established by the National Institute for Medical Expertise and Recovery of Work Capacity which takes into account the amount of energy used in order to perform certain tasks.

Results: We included 193 patients, mostly men, 171 men (81.9%), with a mean age of 47.94±12.04 years and a mean disease duration of 20.07±11.18 years. At the moment of the evaluation 49.7% were still employed and 50.3% were retired due to work disability. Most patients had a professional qualification (89.2%), and manual labor was identified in 132 (6.4%) of the patients. In the study cohort the professional physical strain was mostly low (39.4%) and medium (50.8%). Manual laborers (77.3%) had an active disease, with a mean BASDAI of 5.67(p=0.006) and a mean ASDAS-PCR of 3.2±1.23, the high and very high disease activity (ASDAS-PCR>2.1) being registered in 86.1% of them (p<0.001). Manual workers had an important functional deficit (BASFI=6.32±2.41) (p=0.001). Regarding radiological features, manual laborers had stage IV sacroiliitis in 68.9% of the cases, 82.6% had syndesmophytes, which were generalised in 59.8% of the cases (p=0.005).

A high professional physical strain correlates with active disease (BASDAI=6.22), with the presence of bridging syndesmophytes (81.8%, p=0.009), and generalized syndesmophytes (68.8%, p=0.007).

Conclusion: Manual labor, with strenuous physical activities correlates with high disease activity, severe functional impairment and radiological changes in AS patients.

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Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.8062

THU0369

INCREASED PREVALENCE OF CARDIAC DISORDERS IN DUTCH ANKYLOSING SPONDYLITIS PATIENTS: THE CARDAS STUDY

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Background: The overall mortality rate in ankylosing spondylitis (AS) patients is increased by 60–90% compared with the general population. This higher mortality rate is predominately caused by cardiovascular disease (CVD) comprising both by increased prevalence of cardiac diseases such as valvular heart disease, conduction disturbances and cardiomyopathies as well as atherosclerotic diseases such as myocardial infarctions. However, there is some diversity in the literature and there is a lack of contemporary studies. Therefore, we investigated current prevalences of cardiac disorders in a well characterized cohorts of Dutch patients with AS.

Objectives: The CARDAS study aims to describe the prevalence of CVD in AS patients in a Dutch cohort.

Methods: We performed a cross-sectional study in consecutive AS patients between 50-75 years. Subjects were recruited from a large rheumatology outpatient clinic (Reade) in Amsterdam, the Netherlands. Patients underwent echocardiography with 2D, spectral and Color Doppler imaging. Diastolic dysfunction was evaluated by an experienced cardiologist based on the 2008 ASE guideline. Furthermore, an ECG, blood sample, surveys and physical examination were performed. Disease activity and function were measured with the BASFI, BASDAI and the ASDAS-CRP.

Results: 191 Consecutive AS patients were included with a median age of 58 years (54-65) of which mostly men (136/191, 71%) (Table 1). The mean disease duration was 34.9 years (± 11.9) The disease activity measures, BASDAI, ASDAS-CRP and BASFI, indicated moderate disease activity and were, respectively 3.1 (±2.3), 2.1 (±1.0) and 3.5 (1.6-5.7). The use of bDMARD's was present in 42% of the AS patients. As cardiac manifestations are age related, AS patients were divided in 3 age categories, respectively, 50-59 years, 60-69 years and 70-75 years. Hypertension was diagnosed in respectively 45.3%, 64.1% and 85.7%. History of CVD described as angina pectoris, myocardial infarction, stroke and/or peripheral ischemia were present in respectively 7.5%, 9.4% and 19%. Diastolic dysfunction was present in respectively 40.4%, 61.9% and 89.5% of the AS patients. The diastolic dysfunction present in this population was mainly mild with 60.2% of patients presenting with grade 1 and 39.8% with grade 2 diastolic dysfunction. Moderate to severe aortic regurgitation was present in, respectively 10.4%, 12.5% and 33.4% and moderate to severe mitral valve regurgitation in 33%, 31.3% and 42.9% of the AS patients. These prevalences are substantially increased in comparison to the general Dutch population.

Conclusion: We demonstrated increased prevalences of diastolic dysfunction, aortic valve regurgitation, mitral valve regurgitation and hypertension in Dutch AS patients compared to age matched general population. Although our results suggest mandatory echocardiography screening, this first needs to be established in prospective follow-up studies.

Abstract THU0369 – Table 1. Patient characteristics

	All	50-59 years	60-69 years	70-75 years
N	191			
Men	131 (71%)			
Age (years)	58 (54-65)			
Disease activity				
BASDAI	3.1 (±2.3)			
ASDAS-CRP	2.1 (±1.0)			
BASFI	3.5 (1.6-5.7)			
CVD				
History of CVD*		7.5%	9.4%	19%
Hypertension		45.3%	64.1%	85.7%
Aortic valve regurgitation**		10.4%	12.5%	33.4%
Mitral valve regurgitation**		33%	31.1%	42.9%
Diastolic dysfunction		40.4%	61.9%	89.5%

* Described as angina pectoris, myocardial infarction, stroke and/or peripheral ischemia

** moderate – severe regurgitation.

Disclosure of Interests: Milad Baniaamam: None declared, Sjoerd C. Heslinga: None declared, Thelma Konings: None declared, Otto Kamp: None declared, Vokko P. van Halm: None declared, Irene van der Horst-Bruinsma Grant/research support from: MSD, Pfizer, AbbVie, Consultant