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FRI0324

NO RADIOGRAPHIC SACROILIITIS PROGRESSION OVER 6 YEARS IN PATIENTS WITH EARLY SPONDYLOARTHRITIS FROM THE ESPERANZA COHORT

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Background: Longitudinal studies about the change from non-radiographic axial Spondyloarthritis (nr-axSpA) to r-axSpA (radiographic axial Spondyloarthritis) are scarce but show a 9-10% progression rate over 2 years (1-2) and a 24% progression rate over 10 years in another study (3). However, in early cohorts such as DESIR, this only represents a 5% over 5 years (4).

Objectives: The aim of this study was to know the rate of progression from nr-axSpA to r-axSpA over 6 years in the early Esperanza cohort.

Methods: This study included 94 patients of the Spanish early spondyloarthritis (SpA) Esperanza cohort, 60 fulfilled the ASAS classification criteria for SpA. Every patient had a baseline and a six years sacroiliac X-ray. Nine readers, blinded for the diagnosis, participated in the reliability exercise, all of them experienced rheumatologists and members of the Spanish spondyloarthritis working group (GRESSER). Patients with SpA were classified as having r-axSpA, at baseline or after 6 years of follow-up, if they fulfilled the radiographic item of the modified New York criteria (mNY) (presence of radiographic changes in the sacroiliac joints -SIJ- of at least grade II bilaterally or grade III or IV unilaterally). The gold standard of SIJ X-Ray was the categorical opinion of at least five of the expert readers. For the statistical analysis, the Chi-square and Kappa tests were performed.

Results: Demographic data of the SpA patients were: mean age 33.4±7.5 years; 37 (61.7%) male; mean CRP 6.4±6.5 mg/dl and ESR 10.3±10.6. Present smokers 30.6%; and past smokers 16.3%. HLA-B27 (+) 56.7%. Regarding the presence of X-Ray sacroiliitis: 20 patients had baseline sacroiliitis and 18 at the final visit; 11 had sacroiliitis at both baseline and final visits; 9 patients changed from baseline sacroiliitis to no-sacroiliitis and 7 changed from baseline no-sacroiliitis to sacroiliitis at the 6 year visit. The reliability of the readers was fair with a mean inter-reader kappa test of 0.375 (range 0.146 - 0.652) and a mean agreement of 73.7% (range 58.7% - 90%).

Conclusion: In this group of patients with early SpA no progression from nr-axSpA to r-axSpA over 6 years was observed. It appears that early diagnosis and standard treatment seem to reduce SIJ radiographic progression.

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Sacroiliac Joint Follow-up Basal to 6 years

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FRI0325

UVEITIS OCCURRENCE IN EARLY INFLAMMATORY BACK PAIN. FIVE YEARS DATA FROM A PROSPECTIVE FRENCH NATIONWIDE COHORT

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Background: Uveitis is the most frequent extra rheumatological manifestation in axial Spondyloarthritis (SpA). DESIR is a prospective multicenter cohort of patients with early inflammatory back pain suggestive of SpA. We reported previously a 8.5% baseline prevalence of uveitis for the patients included in the cohort; this history of uveitis at the first visit of the cohort was associated with inflammatory bowel disease (IBD) and preceding infection (1).

Objectives: The aim of the study was to evaluate the prevalence and incidence of uveitis over the first five years of prospective follow-up of the cohort, and to evaluate its associated factors.

Methods: DESIR is a prospective observational cohort of patients with recent onset inflammatory back pain (more than 3 months, less than 3 years), suggestive of axial SpA. All available factors in the database were compared between patients with and without uveitis at 5 years, by uni and then multivariate analysis. Baseline factors associated with new cases of uveitis occurrence over the 5 years were also analyzed. Significance: p less than 0.05.

Results: After 5 years, 91 patients (out of 480 with complete follow-up) had at least one uveitis episode, giving an estimated prevalence of 18.9% [95%CI: 15.4-22.4]. In multivariate analysis, uveitis was associated with dactylitis (OR 2.92 [2.06 - 4.14]; p=0.002**), ESR > 7 mm (median value) (OR 2.19 [1.57 - 3.06]; p=0.018*).

New incident uveitis occurred in 31 cases over 5 years, giving an estimated incidence rate of 1.29 [0.84 - 1.74] / 100 patient-years. New incidence of uveitis was

associated in multivariate analysis with the following baseline factors: diagnosis of SpA (OR 9.65 [3.21 – 28.96]; $p=0.039^*$), total sacro iliac MRI inflammatory SPARCC score (central reading) over median (OR 3.98 [2.26 – 7]; $p=0.015^*$), dactylitis (OR 4.7 [2.65 – 8.36]; $p=0.007^{**}$), syndesmophyte score over median (central reading) (OR 0.22 [0.1 – 0.45]; $p=0.039^*$).

No significant association was found with HLA-B27, cs or b DMARDs, BASDAI, ASDAS, BASFI.

Conclusion: Five-years data of the DESIR cohort allowed an estimation of incidence rate of uveitis of 1.3/100p-y; over five years, uveitis was associated with dactylitis, biologic and sacro iliac MRI inflammation.

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FRI0326

PREVALENCE AND IMPACT OF COMORBIDITIES IN AXIAL SPONDYLOARTHRITIS: SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Comorbidities are common among patients with axial spondyloarthritis (axSpA). The majority of axSpA patients have at least one comorbid medical condition in addition to any extra-articular manifestations [1]. Comorbidity 'burden' is associate with poorer function, quality of life and work-related outcomes [2]. They also influence treatment decisions and are key drivers of mortality.

Objectives: We performed a systematic review and meta-analysis to 1) describe the prevalence of commonly reported comorbidities, 2) compare the prevalence of comorbidities between axSpA and control populations.

Methods: A systematic review was performed in September 2019 using Medline, PubMed, Scopus and Web of Science, in accordance with PRISMA guidelines. Studies were included if they reported the prevalence of comorbidities on disease outcomes, and excluded if they focused on a single comorbidity or closely related diseases in one organ system. Two independent reviewers screened titles and abstracts, assessed full-texts for eligibility and extracted data from qualifying studies. Where possible, we performed meta-analyses for comorbidities reported by at least 3 studies using random-effects models. Pooled prevalence estimates were reported as percentages (95% confidence interval, I^2 statistic for heterogeneity).

Results: 36 studies reported prevalence of of individual comorbidities, amounting to a combined sample size of 119,427 patients. The most prevalent individual comorbidities were hypertension (pooled prevalence 22%), hyperlipidaemia (17%) and obesity (14%) (Figure 1). Eleven studies consistently showed higher prevalence of comorbidities in axSpA than controls (Table 1); odds ratios (OR) were particularly large for depression (pooled OR 1.80) and congestive cardiac failure (OR 1.84). There was significant heterogeneity for the majority of meta-analysis estimates.

Table 1. Meta-analysis estimates for odds ratios (OR) of comorbidities compared between axSpA and control groups.

	Number of studies	Pooled OR	95% confidence interval	I^2 , %
Hypertension	9	1.58	1.29 to 1.92	98
Any cardiovascular disease	3	1.42	0.999 to 2.03	99
Any ischaemic heart disease	7	1.51	1.21 to 1.87	87
Congestive cardiac failure	4	1.84	1.25 to 2.73	89
Stroke	6	1.30	1.04 to 1.62	81
Peripheral vascular disease	5	1.47	1.10 to 1.96	83
Diabetes	8	1.14	1.001 to 1.30	83
Hyperlipidaemia	5	1.18	1.01 to 1.39	94
Cancer	5	1.22	1.01 to 1.47	93
Depression	4	1.80	1.45 to 2.23	92

Figure 1. Pooled prevalence of individual comorbidities.

Conclusion: Comorbidities are common in axSpA. Almost all comorbidities examined were more prevalent in axSpA patients than age and sex matched controls, with $\geq 80\%$ higher odds for congestive cardiac failure and depression. Systematic and repeated assessments should therefore be integrated into routine clinical practice to ensure holistic patient-centred management. Additional studies are needed to validate comorbidities indices for axSpA research.

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FRI0327

QUALITY OF LIFE, QUALITY OF SLEEP AND PRESENCE OF RESTLESS LEG SYNDROME IN ANKYLOSING SPONDYLITIS

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Background: For chronic diseases like ankylosing spondylitis (AS), improving patients quality of life (QOL) is one of the main aims of the therapy. Sleep quality is an important determinant of QOL. Restless leg syndrome (RLS) is a frequent disorder that disturbs patients QOL.

Objectives: The aim of this study is to evaluate the sleep quality of patients with AS and to determine the possible reasons of sleep disorder like pain, disease activity, functional status, depression, anxiety, presence of RLS and their impact on patients QOL.

Methods: One hundred twenty two patients with ankylosing spondylitis were enrolled in the study. Quality of life was evaluated by using short form-36 (SF-36). Beck depression and Beck anxiety indices were used to evaluate the mood of the patients. Sleep quality was determined with Pittsburg Sleep Quality Index. International Restless Leg Study Group (IRLSSG) criteria was used to determine the co-existing restless leg syndrome. Demographic data including age, sex, height, weight, marital status, educational status, disease duration and medical treatments were noted. BASDAI (Bath ankylosing spondylitis disease activity index), BASMI (Bath ankylosing spondylitis metrology index) and BASFI (Bath ankylosing spondylitis functional index) are determined and perceived pain level was evaluated by visual analog scale for pain (VASpain) for all patients.

Results: According to Pittsburg Sleep Quality Index 48 patients (39.3%) had bad sleep quality. When patients with bad sleep quality were compared with the patients with good sleep quality according to SF-36, BASDAI, BASMI, BASFI, VAS pain, Beck depression and Beck anxiety indices worse scores were obtained in patients with bad sleep quality. The difference between two groups were statistically significant for almost all of the listed parameters (Table-1). Restless leg syndrome (RLS) was determined in 36.06% (44/122) of AS patients. RLS was more common in patients with bad sleep quality but the difference did not reach statistical significance.