

Results: Patients with a high internal health locus of control (HLCint 13.1 vs. 9.1) had less pain (numeric rating scale 0–10), less flares, a better mental and physical health related quality of life, lower disease activity and less fatigue. Patients with a high external 'doctor'-related health locus of control (HLCdoc 10.7 vs. 7.2) were older, had more co-morbidities, more disease damage and received more frequently an immunosuppressive therapy. No significant differences were found between the patients with a high external 'chance'-related HLC compared to the lower scoring patients (HLCcha 11.1 vs. 6.3). Participants with a high external 'doctor'-related HLC had a more threatening view on their illness and a better adherence to medication (high adherence in 78.6% vs. 59.4%). Participants with a high internal HLC perceived their disease significantly less threatening. Higher education levels (school education, further education) went along with a decrease of external 'doctor'-related HLC (HLCdoc).

Conclusions: Health locus of control has a significant impact in patients with SLE. Depending on the HLC different disease characteristics, treatments, levels of medication adherence and illness perception were noticed. Holistic care needs to consider the impact different HLCs may have. The direction of causality cannot be proved beyond reasonable doubt in this cross-sectional analysis. Hence additional longitudinal studies are necessary.

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AB1128 **HELICOBACTER PYLORI IN SYSTEMIC LUPUS ERYTHEMATOSUS ITS ASSOCIATION WITH ENDOSCOPIC AND HISTOPATHOLOGIC FINDINGS**

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Background: Helicobacter pylori (Hp) is a Gram-negative bacteria and the cause of most of the chronic gastric infections and its prevalence is above 50% worldwide. This infection is a well-known risk factor to gastric MALT lymphoma but also could be the trigger of several autoimmune diseases such as immune thrombocytopenic purpura and systemic lupus erythematosus

Objectives: To determine the frequency of H pylori in systemic lupus erythematosus patients (SLE).

Methods: A cross-sectional study was done in patients who fulfilled the 2012 SLICC criteria for SLE and were willing to sign the informed consent to be subjected to endoscopic procedure. The tissue sample was analyzed by pathologist. We used mean and standard deviation to describe the data, to compare both groups Student t test was done and for continuous variables we used chi-square; the correlation analysis was performed with

Results: Twenty two SLE patients were included and we chose a control group from database of endoscopic clinic with diagnosis of functional dyspepsia. Mean age of study group was 31 vs 48 year-old, 95% were women, 32% with immunosuppressant and 95% were taking *antimalarials*. The frequency of Hp in SLE patients was 60%, dsDNA and anti-Ro autoantibodies were associated with the presence of Hp; the study group had more frequency of nodular gastritis, metaplasia and dysplasia. Seventy per cent of patients had less than 5 years of diagnosis.

Conclusions: We found a high frequency of H pylori infection in patients with SLE. Metaplastic and dysplastic changes were also more prevalent in the SLE group. Our data suggest that Hp infection took place in early stages of disease.

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AB1129 **A SYSTEMATIC REVIEW ON PREVALENCE OF BACK PAIN AND SPONDYLOARTHRITIS BASED ON COPCORD STUDIES**

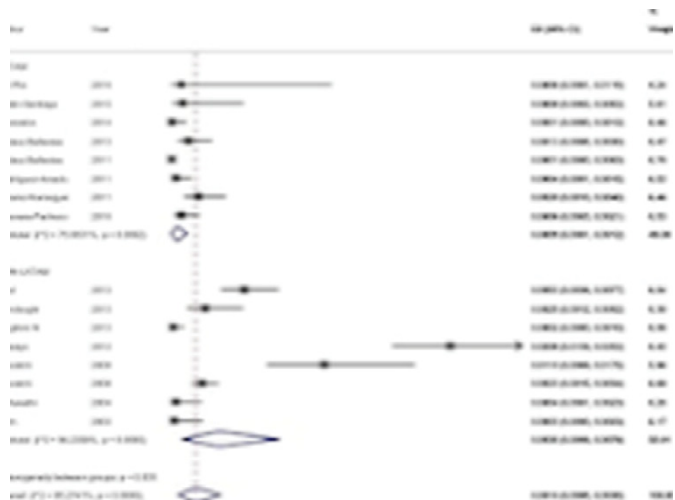
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Objectives: To determine, through a systematic review and meta-analysis, the

prevalence of back pain (BP) and spondyloarthritis (SpA) in the adult general population and explore the heterogeneity between studies in and out Latin America (LATAM).

Methods: MEDLINE, Embase, BIREME, LILLACS and Web of Science were searched using a strategy combining key words and related database-specific subject terms to identify relevant cross-sectional studies based on COPCORD methodology published since 2006. Included articles were assessed for risk of bias and quality based on the STROBE statement. Prevalence figures for BP and SpA (European Spondyloarthritis Study Group criteria) were analyzed according to female percentage of sampled individuals, mean age and sample size. A mixed effect model was used to obtain the combined prevalence and a meta-regression to estimate the effects of these variables. Prevalence stratified values were obtained according to its geographical location.

Results: 44 out of 127 papers in English, Spanish or Portuguese were selected. Of them, 16 contained BP or SpA prevalence data. Estimates for any SpA prevalence ranged from 0,1% to 2%, with an average of 0,3% (95% CI: 0,01%>0,05%). The random-effects pooled prevalence was 0,18% (0,06%>0,36%). The prevalence of BP was 6.54% (3.8%>9.2%) with a pooled value of 5.24% (2.6%>8.7%). In both cases the heterogeneity was significant (p<0.01). No effect was associated to SpA heterogeneity, but an increase in the prevalence of BP was associated to sample size (random effect coefficient: 0,045, p=0.04). The stratified analysis did not show differences in terms of heterogeneity or prevalence for BP (Pooled prevalence for BP: 5.4%; 2.9%>8.5%, p=0.9); on the contrary, for SpA, for non-LATAM studies, the pooled proportion was significant bigger (prevalence in LATAM 0.05%, 0.01%>0.012%; non-LATAM: 0.35%, 0.09%>0.78%, p=0.03)



Conclusions: We found significant variations in prevalence across this review. In particular, they related to sample size of BP studies. Similarly, there was a significant variation between LATAM versus other latitudes respect to the prevalence of SpA. The limited number of studies included in this meta-analysis however, prevents clear explanations of the mechanisms underlying these results.

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AB1130 **RELAPSE RISK ASSESSMENT IN YOUNG APS PATIENTS WITH PREVIOUS STROKE EVENT USING THE ADJUSTED GLOBAL ANTIPHOSPHOLIPID SYNDROME SCORE (AGAPSS)**

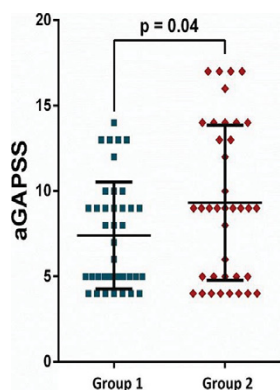
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Background: The most frequent manifestation of arterial thrombosis in patients affected by Antiphospholipid syndrome (APS) is ischaemic stroke, especially in young adults (less than 50 years old) [1]. Young adults affected by APS are a group of patients at greater risk of developing serious stroke events and recurrences of thrombosis. Therefore, risk stratification in this particular group is crucial, especially in order to prevent a recurrence of ischaemic thrombotic event.

Objectives: With the present study we aimed to assess the clinical usefulness of the adjusted Global Antiphospholipid Syndrome Score (aGAPSS) [3] for risk stratification of thrombosis relapse and/or progression of known ischaemic lesions detected with Magnetic Resonance Imaging (MRI) in a cohort of young adult APS patients.

Methods: The analysis included 80 APS patients (≤ 50 years old) who presented a previous stroke event (patients who experienced cerebral venous sinus thrombosis were not included in the analysis). Clinical and laboratory data were retrospectively collected. Treatment was based on physician's opinion according to clinical settings. The aGAPSS was calculated for each patient by adding the points corresponding to the risk factors, based on a linear transformation derived from the β regression coefficient as follows: 3 for hyperlipidaemia, 1 for arterial hypertension, 5 for aCL IgG/IgM, 4 for anti β 2glycoprotein I IgG/IgM and 4 for LA. Relapse was defined as the recurrence of thrombotic event and/or progression of known ischaemic lesions detected with MRI.

Results: Results pointed out that patients with relapse of thrombotic events and/or progression of known ischaemic lesions were 39 out of 80 (48.7%) and patients without relapse were 41 out of 80 (51.3%). Significantly higher aGAPSS values were observed in relapse group when compared to the non-relapse group [mean aGAPSS 9.08 (S.D. 4.7) Vs. mean aGAPSS 7.22 (S.D. 3.3); T test: $p < 0.05$]. Distribution of aGAPSS values among the two groups is illustrated in Graph 1.



Graph 1.: Distribution of aGAPSS values among the two groups; Group 1: patients without relapse of thrombotic events and/or progression of known ischaemic lesions detected with MRI; Group 2: patients who presented relapse of thrombotic events and/or progression of ischaemic lesions.

Conclusions: Our analysis suggests that aGAPSS could represent an effective tool to stratify the risk of relapse of thrombosis and/or progression of ischaemic lesions in young APS patients with clinical history of stroke. These data could also aid developing different therapeutic approaches, especially for patients at higher risk of relapse.

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AB1131 RISK OF DEVELOPING ATHEROSCLEROSIS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Patients with chronic inflammatory diseases have an increased risk of developing atherosclerosis. Pro-inflammatory cytokines such as interleukin-(IL-)1 β and tumor necrosis factor-(TNF)- α , C-reactive protein (CRP) influence on the progression and development of both rheumatoid arthritis (RA) and atherosclerosis.

Methods: 620 patients with RA (diagnosis according to ACR /EULAR) from the rheumatology in-patient clinic with the mean age of 43.4 \pm 10; 95.4% ACCP – positive patients, activity on DAS (Disease Activity Score) 28 II, III; 85.4% female with the disease duration for about 3–15 years were enrolled in the trial. We assessed the level of IL-1 with the use of ELISA.

Results: The constructed model surfaces indicated the interdependence of IL-1, the activity of DAS 28 and the level of LDH in RA patients. The correlative and regressive analysis of the results showed the statistically significant correlation of TG, LDG and markers of inflammation IL-1, DAS 28: $p=0.627$ ($p < 0.01$), $p=0.527$ ($p < 0.01$), $p=0.712$ ($p < 0.01$), $p=0.776$ ($p < 0.01$) accordingly. The correlation coefficient between hs-CRP and the indicators of the lipid profile revealed similar interconnections.

Conclusions: According to the results of modeling, disease activity on DAS and markers of inflammation (IL-1 and hs-CRP) as a markers of the severity of

inflammatory process in RA patients are risk factors for developing atherosclerosis. The analysis of inflammation indicators in RA patients allows to assess the risk of developing and progressing atherosclerosis. The data enables to select the best possible personalized therapy for such patients at the early stage of the disease.

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AB1132 HIGHER RATES OF OBESITY AND ASSOCIATIONS WITH POORER CLINICAL STATUS IN PATIENTS WITH RA, OA AND SLE: A CROSS-SECTIONAL STUDY FROM ROUTINE CARE

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Background: Obesity is a risk factor for many chronic rheumatic diseases. In rheumatoid arthritis (RA), obesity is associated with increased comorbidities, higher medical costs, disease activity, and poorer physical function¹. In OA, obesity is a risk factor for both incidence and progression, and has a negative impact on outcomes². In systemic lupus erythematosus (SLE), obesity is associated with more severe renal involvement, lower quality of life, and increased cardiovascular risk³.

Objectives: To assess associations of obesity with patient self-report multidimensional health assessment questionnaire (MDHAQ) scores and physician global assessments in patients with RA, OA and SLE seen in routine care.

Methods: All patients at one academic center complete a MDHAQ, which includes a 0–10 scale for physical function (FN), 0–10 visual analogue scales (VAS) for pain (PN) and patient global assessment (PATGL), compiled into a 0–30 RAPID3, as well as scales for fatigue, depression, and demographic data. Physicians complete a VAS for patient global (DOGGL). Body Mass Index (BMI) was calculated from the medical record as weight (kg)/ height (meters)². Patients were classified by BMI as normal (18.5–25), overweight (25–30), or obese (>30) according to the WHO guidelines. Demographic and clinical MDHAQ data were compared in the 3 diagnostic groups according to BMI groups using ANOVA and chi-square tests.

Results: 396 patients with RA, 425 with OA, and 306 with SLE were studied. Obesity was reported by 40% of RA and SLE patients, and 59% of OA patients, a higher percentage than matched individuals in the general population in the same region (30.8%). Obesity was higher in African-American patients (48% in RA, 70% in OA, and 53% in SLE). Education level, gender, and age did not differ significantly across the groups. Obesity was associated with poorer physical function, poorer patient global and higher pain in all 3 diagnostic groups, with higher depression scores in OA and SLE (Table). DOGGL was significantly higher only in OA (data not shown).

Table 1. MDHAQ scores and physician global assessment according to BMI groups

MDHAQ scores	Normal (BMI=18.5–25)	Overweight (BMI=25–30)	Obesity (BMI>30)
RA (N=381)	110 (29%)	112 (30%)	154 (40%)
Function (0–10)	2.1 (2.2)	2.4 (2.2)	2.9 (2.0)*
Pain (0–10)	4.4 (2.8)	4.6 (3.0)	5.1 (3.1)*
Fatigue (0–10)	3.4 (2.9)	3.6 (3.1)	4.5 (3.2)*
PATGL (0–10)	3.8 (2.7)	4.1 (3.1)	4.8 (2.8)*
Depression (0–3.3)	0.5 (0.7)	0.5 (0.7)	0.6 (0.8)
OA (N=420)	60 (14%)	102 (24%)	247 (59%)
Function (0–10)	1.7 (1.5)	2.6 (1.8)	3.2 (2.0)*
Pain (0–10)	5.1 (2.9)	6.7 (2.5)	6.6 (2.6)*
Fatigue (0–10)	3.4 (2.9)	4.3 (2.9)	5.3 (3.1)*
PATGL (0–10)	4.5 (3.1)	5.7 (2.5)	5.9 (2.7)*
Depression (0–3.3)	0.4 (0.6)	0.6 (0.8)	0.7 (0.8)*
SLE (N=299)	84 (28%)	85 (28%)	121 (40%)
Function (0–10)	1.4 (1.5)	1.2 (1.6)	2.3 (2.1)*
Pain (0–10)	3.5 (3.2)	3.9 (3.1)	5.2 (3.3)*
Fatigue (0–10)	4.2 (3.3)	4.2 (3.4)	5.1 (3.2)
PATGL (0–10)	3.6 (2.9)	3.9 (3.1)	4.6 (3.2)*
Depression (0–3.3)	0.4 (0.6)	0.4 (0.6)	0.7 (0.8)*

* $p < 0.01$.

Conclusions: Obesity is more prevalent in patients with rheumatic diseases compared with the general population. Obese patients had poorer status on most MDHAQ scores, particularly physical function and pain. Obesity is an important comorbidity in patients with rheumatic diseases.

References:

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