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AB0432 CLINICAL AND SEROLOGICAL CHARACTERISTICS OF "RHUPUS SYNDROME"

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Background: Systemic lupus erythematosus (SLE) is a multisystemic and chronic autoimmune disorder that typically affects (1). Arthritis is one of the most frequent manifestations in SLE with an incidence reported from 69% to 95% (2). Rheumatoid arthritis (RA) is an articular, inflammatory, chronic disease of autoimmune nature (3). Rhupus syndrome is defined as a patient that meets the classification criteria for RA of the American College of Rheumatology (ACR) of 1987 and for SLE of the ACR of 1982, in addition, necessarily erosive arthropathy with antibodies specific for positive SLE (anti-Sm or anti-DNAc) (4). With the development of more recent classification criteria for both RA and SLE, which allow us to detect both diseases earlier, they create even more heterogeneity in the definition of rhupus, being a rare entity, the analysis of the clinical and serological characteristics of this population in our clinic would provide data to the few existing.

Objectives: To describe the clinical and serological characteristics of patients with Rhupus.

Methods: An observational, retrospective study was done in the rheumatology clinic of the university hospital "Dr. Jose Eleuterio Gonzalez" in Monterrey, Mexico. The electronic medical record (EMR) was reviewed. In search of the term "rhupus". All the patients were analyzed individually to verify the rhupus diagnosis. The main clinical and serological characteristics were evaluated. The results are shown in descriptive statistics.

Results: 30 patients were obtained from the search in the EMR, 22 patients were included, 8 patients were excluded (5 non-SLE, 3 non-RA) (Figure 1). The mean age was 40.14 (SD 10.86); 20 (90.9%) were females; the onset diagnosis was SLE in 5 (22.7%), RA in 14 (63.6%) and both 3 (13.6%). 17 (77.3%) had general symptoms, 12 (54.5%) had cutaneous manifestations, 14 (66.6%) had renal manifestations, 6 (27.3%) had serositis, 19 (86.3%) had hematologic manifestations, 3 (13.6%) had neuropsychiatric manifestations, 1 (4.5%) had diffuse alveolar hemorrhage. 12 (60%) had anti-dsDNA positive, 4 (23.5%) had anti-Sm positive, 16 (84.2%) had anti-CCP positive (Table 1). The articular manifestations (swollen and tender joints at onset and at last visit) are detailed in Table 2. The treatments were different at the onset of the disease compared with the last visit, except for methotrexate (Table 2).

Table 1. Clinical and serological characteristics.

	N=22
Female, n (%)	20 (90.9)
Age, mean (SD)	40.14 (10.86)
Onset diagnosis	
SLE, n (%)	5 (22.7)
RA, n (%)	14 (63.6)
Both, n (%)	3 (13.6)
Manifestations	
General, n (%)	17 (77.3)
Cutaneous, n (%)	12 (54.5)
Renal, n (%)	14 (66.6)
Serositis, n (%)	6 (27.3)
Hematological, n (%)	19 (86.3)
Neuropsychiatric, n (%)	3 (13.6)
Diffuse alveolar hemorrhage, n (%)	1 (4.5)
Serology	
Anti-dsDNA (N=20), n (%)	12 (60)
Anti-Sm (N=17), n (%)	4 (23.5)
Anti-CCP (N=19), n (%)	16 (84.2)

Table 2. Disease activity and treatment.

	At onset N=22	Last visit N=22
Swollen joints, mean (SD)	9.3 (6.6)	3.0 (4.8)
Tender joints, mean (SD)	8.5 (7.1)	1.59 (3.8)
VAS, mean (SD)	42 (33.6)	17.2 (21.1)
PGA, mean (SD)	38 (32.3)	16.6 (20.3)
Activity scales		
SLEDAI-2k, mean (SD)	8.38 (4.5)	2.9 (3.2)
DAS28-VSG, mean (SD)	5.26 (1.51)	2.89 (0.83)
Treatment		
Glucocorticoid, n (%)	21 (95.4)	15 (68.2)

Table 2. Disease activity and treatment.

	At onset N=22	Last visit N=22
Antimalarials, n (%)	17 (77.2)	11 (50)
Immunosuppressants, n (%)	8 (36.3)	2 (9.1)
Methotrexate, n (%)	16 (72.7)	16 (72.7)
Leflunomide, n (%)	4 (18.2)	5 (22.7)
Sulfasalazine, n (%)	5 (22.7)	0 (0)

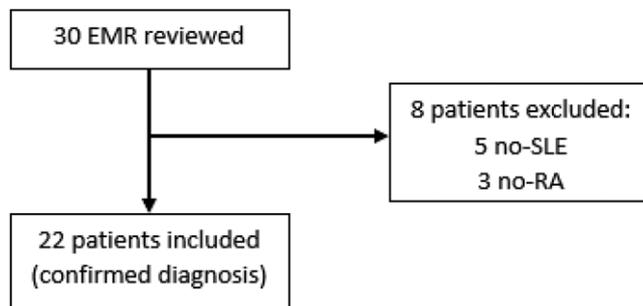


Figure 1.

Conclusion: In our cohort, rhupus affects more frequently females, the hematologic manifestations are very frequent and the neuropsychiatric and diffuse alveolar hemorrhage was rare.

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AB0433 HIGH RISK OF MATERNAL THROMBOTIC AND SEVERE HEMORRHAGIC COMPLICATIONS IN 119 PROSPECTIVE PREGNANCIES ASSOCIATED WITH ANTIPHOSPHOLIPID SYNDROME (GR2 STUDY)

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Background: Women are at higher risk of thrombotic or severe bleeding complications during pregnancy, especially in the postpartum period (around 1%), but no prospective data have been available for women with antiphospholipid syndrome (APS). We report the first results of the French GR2 prospective study of pregnancy and rare diseases.

Objectives: To describe the thrombotic and haemorrhagic events in APS patients included in the GR2 study and to identify risk factors associated with these complications.

Methods: Women with APS and an ongoing pregnancy at 12 weeks of gestation were eligible for prospective inclusion in the GR2 study. Exclusion criteria were proteinuria (ratio > 1 g/g), serum creatinine > 100 µmol/L, or a multifetal pregnancy. Severe bleeding was defined as the need for transfusion, intensive care admission, or invasive treatment. Uteroplacental vascular insufficiency was defined as intrauterine growth restriction, preeclampsia, or HELLP syndrome.

Results: The study included 119 pregnancies in 119 APS patients (53% thrombotic and 47% obstetric only APS). Treatment included aspirin (99%) and heparin (98%, in the therapeutic range for 50%).

Twelve women (10%) had a thrombotic (n=5) and/or a severe haemorrhagic event (n=9).

The thrombotic events included stroke (at 11 weeks; n=1), catastrophic APS (CAPS) (n=2), a pulmonary embolism (n=1), and portal vein thrombosis (n=1) (in the postpartum). Placental insufficiency was also present in 6 of these 12 women.

Among the 22 (18.5%) women with at least one bleeding event (n=28), 9 (7.6%) had events defined as severe. Six of nine (67%) severe haemorrhages occurred in the postpartum and were directly related to the delivery. Two required an intra-uterine balloon tamponade, two uterine arterial embolisation, and three surgery, including one hysterectomy.

No women died.

Finally, thrombotic and/or severe bleeding events during the postpartum period (n=9) were more frequent in women with lupus anticoagulant (14% versus 0%; P=0.01), with associated placental insufficiency (29% versus 3%; P=0.001) and with preterm delivery ≤ 34 weeks (33% versus 4%, P=0.002).

Conclusion: Even though most women in our cohort received treatment based on current recommendations, a substantial number of maternal thrombotic and haemorrhagic events (10%) occurred. Despite several life-threatening complications, including CAPS, no women died.

Most of the thrombotic or haemorrhagic events occurred in the peripartum period, and they were more frequent in women with the lupus anticoagulant, placental insufficiency, and preterm delivery.

Although this morbidity rarely appears preventable, knowledge of the risk factors should increase awareness and help physicians to manage APS patients at particularly high risk.

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AB0434 **PREVALENCE OF ANTIPHOSPHOLIPID SYNDROME COMPONENTS IN MEN WITH STABLE CORONARY HEART DISEASE AND POSTINFARCTION CARDIOSCLEROSIS AND CONNECTION WITH ECHOCARDIOGRAPHIC EVALUATION OF CARDIAC STRUCTURE AND FUNCTION 1.0.0.20**

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Background: Antiphospholipid syndrome (APS) as an independent factor in different forms of coronary heart disease (CHD) has been attracting more attention in recent years [1]. The prevalence of AFS in the general population is low (1-5%) but among patients with acute coronary syndrome it ranges from 6.1% to 43.3%. The persistence of high titers of antiphospholipid (aPL) antibodies, especially antibodies to cardiolipin, accelerates the development of endothelial dysfunction and atherothrombotic lesions of the coronary arteries, worsens the course of acute myocardial infarction. It has been experimentally demonstrated that aPL antibodies can directly affect myocardial status through pro-apoptotic signaling pathways and increased cardiomyocyte apoptosis [2]. The impact of aPL antibodies on the course of post-infarction myocardial remodeling in patients with CHD has not been established.

Objectives: To study the prevalence of APS components in men with stable CHD with postinfarction cardiosclerosis and to evaluate the relationship with structural and functional state of left ventricular myocardium.

Methods: 164 patients with CHD with postinfarction cardiosclerosis were examined (100% males at the average age of 53.0 \pm 9.14 (M \pm σ)). The diagnosis of CAD was made according to the recommendations of the ANA / ACC (2014) and ESC (2013). The content of IgG and IgM of aPL antibodies - antibodies to cardiolipin, phosphatidylserine, phosphatidylinositol, phosphatidylacetate and levels of IgG and IgM to β 2-glycoprotein I (β 2-GP-I) in the blood serum were determined by ELISA. Echocardiography in M-, B- and D-modes was performed.

Results: Among 164 patients with post-infarction cardiosclerosis: 75% had Q myocardial infarction (MI), 10.4% had recurrent MI, 7.9% had a stroke or transient ischemic attack and 4.2% had livedo reticularis. 93 (56.7%) patients had positive levels of total aPL antibodies and antibodies to β 2-GP-I of IgG class (58 (35.4%) patients had low positive levels of antibodies, 35 (21.3%) patients had medium positive levels of one or both types of antibodies. Positive levels of aPL antibodies and antibodies to β 2-GP-I of IgM were detected in 11.6% of patients. Positive levels of aPL antibodies and antibodies to β 2-GP-I were more commonly found in men who had Q MI (OR 2.58 95% CI 1.26 - 5.28) and recurrent MI (OR 2.52 95% CI 0.83 - 7.67). Increases of levels of aPL antibodies and antibodies to β 2-GP-I correlated with an increase of left ventricle (LV) mass index (r = 0.259 and 0.331, p <0.001). In patients with positive levels of antibodies of IgG to β 2-GP-I in postinfarction LV

remodeling was more likely to occur by concentric type of hypertrophy of LV than in patients with negative levels of antibodies to β 2-GP-I (OR 6.50, 95% CI 2.49 - 16.9, p <0.001). Hypertension had no significant differences within these groups.

Conclusion: The risk of persisting positive levels of aPL antibodies and antibodies to β 2-GP-I in the postinfarction period is significantly increased in men who had Q MI. Patients with CHD with positive antibodies to β 2-GP-I of IgG are associated with an increased risk of postinfarction LV myocardial remodeling by concentric type of hypertrophy of LV.

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AB0435 **RISK OF SERIOUS INFECTION IN LUPUS NEPHRITIS AND RHEUMATOID ARTHRITIS MEASURED USING THE JAPANESE REAL WORLD HOSPITAL CLAIMS DATABASE**

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Background: Patients with lupus nephritis (LN) and rheumatoid arthritis (RA) are at risk of serious infections (SIs) due to the impact of the disease itself and treatments that modulate immune system. Though the epidemiology of RA has been well-established by developing many targeted DMARDs (tDMARDs) including biologics and targeted synthesized DMARDs, LN is a very rare disease. Therefore, a large sample size with a significant number of cases is required to determine the exact risk of SIs in LN.

Objectives: To compare the incidence rates of SIs resulting in an inpatient claim in adult patients with LN compared with RA with or without tDMARDs using hospital claims data in Japan.

Methods: LN and RA were identified using claims data provided by Medical Data Vision Co., Ltd (Tokyo, Japan) between April 2008 and June 2019 which was extracted 5th September 2019. Data between January 2010 and December 2018 was used for analysis. Patients with LN and RA were identified using modifications to algorithms developed before [1, 2]. LN patients were required to have continuous insurance claim for both systemic lupus erythematosus (SLE) and LN for ≥ 6 months after index date and then RA patients had continuous insurance claim for RA for ≥ 6 months after index date. First incident SIs were defined as those that resulted in an inpatient claim for a pre-specified set of ICD-10 code. Incidence rates (IRs) were calculated along with 95% confidence intervals (CI).

Results: The LN, RA, RA treated with tDMARDs and RA treated without tDMARDs cohorts included 6,403, 108,317, 16,450, and 91,867 patients, respectively. As anticipated, the LN and RA cohorts were predominantly female and the RA cohort was generally older than the LN cohorts. IRs per 1,000 person-year (PY) [95% CI] for pneumocystis carini pneumonia were 28.2 [26.0-30.4] in LN, 8.5 [8.2-8.8] in RA, 12.6 [11.7-13.5] in RA with tDMARDs and 7.7 [7.4-8.0] in RA without tDMARDs. IRs per 1,000 PY for septicaemia infection were 23.3 [21.3-25.3] in LN, 12.1 [11.7-12.4] in RA, 13.3 [12.3-14.2] in RA with tDMARDs and 11.8 [11.5-12.2] in RA without tDMARDs. IRs per 1,000 PY for cytomegalovirus infection were 13.4 [11.9-14.9] in LN, 4.4 [4.2-4.6] in RA, 6.2 [5.6-6.8] in RA with tDMARDs and 4.1 [3.8-4.3] in RA without tDMARDs. IRs per 1,000 PY for tuberculosis were 7.2 [6.0-8.3] in LN, 6.7 [6.5-7.0] in RA, 18.2 [17.1-19.3] in RA with tDMARDs and 4.4 [4.2-4.7] in RA without tDMARDs.

Conclusion: In this population-based analysis of claims data from Japan, the IRs of SI such as pneumocystis carini pneumonia, septicemia infection and cytomegalovirus infection were higher in LN than in RA. And also, the incidence of tuberculosis in RA treated with tDMARDs was highest among these cohorts. These findings demonstrate the relative contribution of age, immunosuppressive therapies and disease-related factors in LN and RA.

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