Conclusion: Cardiovascular, bone and neurologic comorbidities are frequently detected already at the time of diagnosing SLE. High numbers of medical prescriptions and hospitalization following SLE diagnosis reflect the comprehensive disease burden. Differences to controls without autoimmune disease are overestimated by detection bias.

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PULMONARY HYPERTENSION IN NEWLY DIAGNOSED SPANISH PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: DATA FROM THE RELES COHORT

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Background: Systemic lupus erythematosus (SLE) is a systemic autoimmune disease characterized by multiorgan involvement. Pulmonary hypertension (PH) is an uncommon manifestation with high morbidity and mortality whose characteristics, prevalence and evolution in SLE are not completely defined.

Objectives: Using data of patients from the inception cohort Registro Español de Lupus Eritematoso Sistémico (RELES), we aimed to identify the factors associated with pulmonary hypertension (PH) in systemic lupus erythematosus (SLE).

Methods: Prospective observational study on a multicenter Spanish inception cohort. Patients with SLE, diagnosed by the American College of Rheumatology

(ACR) criteria, since January 2009, who had at least one transthoracic echocardiogram (TTE) performed were selected. Demographic data, diagnostic criteria, follow-ups, treatments and SLEDAI were analyzed.

Results: Of 289 patients diagnosed with SLE with TTE performed, 15 (5.2%) patients were identified to have PH. Mean age was 56.9±7.7 years, of which 93.3% (14) were women and 80% (12) Caucasian. The ACR score at diagnosis was 4.66. Mean SLEDAI was 15. Only 5 patients had dyspnea at the time of diagnosis. Mean pulmonary arterial systolic pressure was 49.2±5.6 mmHg. Among the PH, 4 patients had pericarditis (26.6%), 3 (20%) valvulopathies (1 antiphospholipid syndrome), 1 patient pulmonary embolism and 1 shrinking lung. Multivariable analysis indicated that pericarditis (odds ratio (OR)=2.53), and valvulopathies (OR 8.96) were independently associated with the development of PH in SLE. Having PH was associated with older age at diagnosis (p<0.001), more dyspnea (p<0.001), higher ESR (p=0.007), more serositis (p<0.001), higher SLEDAI (p=0.011), higher SLICC (p<0.001), higher number of admissions (p=0.006) and higher mortality (p=0.003).

Conclusion: PH in SLE is a serious comorbidity with high mortality. In the RELES cohort it was associated with increased disease activity, pericarditis and valvulopathies. Performing TTE in patients with SLE may favor early diagnosis and treatment.

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ULTRA HIGH-RESOLUTION ULTRASOUND (UHFUS) OF LABIAL SALIVARY GLANDS: POTENTIAL APPLICATIONS IN PRIMARY SJÖGREN'S SYNDROME

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Background: Major salivary gland ultrasonography has an established role in diagnosis and assessment of pSS. Nowadays, however, interest is also growing in last-generation ultra high resolution ultrasound (UHFUS) transducers, which can produce frequencies up to 70 MHz and achieve tissue resolution up to 30 µm, opening up new possibilities for the study labial salivary glands (LSG).

Objectives: To investigate the usefulness of UHFUS in LSG ultrasound-guided biopsy and preoperative planning.

Methods: Consecutive patients undergoing a LSG for clinically suspected pSS were included in this study from January 2018 to December 2019. UHFUS of LSG was performed by using VEVO MD, equipped with a 70 MHz probe, scanning first the central compartment of the inferior lip, and then both peripheral compartments. The following parameters were evaluated: distribution of the glands, parenchymal inhomogeneity (score 0-3, from normal to evident), and fibrosis. UHFUS imaging was used to help locate the LSG for the US-guided biopsy. The same expert pathologist calculated the surface area of gland sections examined, the LSG focus score (FS), the number of foci and evaluated the presence of ectopic germinal centers (GCs). Consecutive patients that had undergone a traditional LSG biopsy from December 2016 to December 2017 were included as controls.

Results: We included a total of 249 patients with suspected pSS: 137 undergoing the UHFUS-guided LSGs and 112 the traditional LSG biopsy procedure. No demographic differences were observed between the two groups. No differences were also observed in the distribution of the final diagnosis. A diagnosis of pSS according the ACR 2016 criteria was made in 60/137 (43.8%) and 36/112 (32.1%) patients, respectively whereas a diagnosis of no-SS sicca was made in 44/137 (32.1%) and in 43/112 (38.4%) patients; the remaining diagnosis included secondary SS (4/137, 3% and 9/112, 8%) and undifferentiated connective tissue disease (UCTD) (29/137, 21.2%, and 24/112, 21.4%). With respect to no-SS sicca controls and UCTD patients, pSS patients presented higher UHFUS inhomogeneity scores in both central and peripheral labial compartments (p=0.001). There were no complications from the UHFUS-guided LSG biopsy. The mean glandular surface area obtained was significantly higher than the area obtained by traditional LSG biopsy procedure (7.4 ±4.0 mm² vs 6.3±3.7 mm², p=0.02) thus facilitating the assessment of the FS. Interestingly, the latter showed a good correlation with the UHFUS inhomogeneity (r=0.509**, p=0.000).