detection of immunological disorders (highly positive ab to dsDNA) was observed in 7 patients (6%) with reliable APS and probable SLE, who may not have had time to develop a clinic for reliable SLE.

Livedo, as one of the most frequent skin manifestations of APS, was detected in 60 patients and was significantly associated with IgM-aCL and IgM-aβ2HP1 positivity ($p<0.0001$). Significantly, positivity for IgG-aCL, IgG-aβ2HP1 and IgG-aβ2HP1-D1 ($p=0.0001$) and IgA-aCL ($p=0.008$) was associated with the development of comminuted hemorrhages, which occurred in 7 patients with APS and was associated with positivity of IgG-aCL, IgG-aβ2HP1, IgG-aβ2HP1-D1 ($p=0.0001$) and IgA-aCL ($p=0.008$).

The development of ulcerative-necrotic vasculitis with deep skin necrosis was observed in 3 patients, 2 of them were highly positive for IgG-aCL, IgG-aβ2HP1, IgG-aβ2HP1-D1. Melanoma was detected in the past history in 2 patients with highly positive for IgG-aCL, which is not a manifestation of the underlying disease, but confirms an increased risk of malignancy with aPL-positivity.

Conclusion: More than half of the patients had acute skin lesions, and about a quarter of the cases had skin lesions at the onset of the disease. The presence of comminuted hemorrhages was associated with positivity of IgG-aCL, IgG-aβ2HP1, IgG-aβ2HP1-D1 and IgA-aCL. Assessment of skin activity and damage (in particular, according to the CLASI index) is necessary for a comprehensive analysis of the dynamics of the disease and the response to therapy. The detection of aPL is necessary not only for the purpose of predicting thrombotic catastrophes, but also for the development of skin manifestations of APS.

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POS0781

PERFORMANCE OF MAJOR SALIVARY GLAND ULTRASOUND FOR THE DIAGNOSIS OF SJÖGREN'S SYNDROME IN CLINICAL PRACTICE

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Background: There is no specific test to diagnose Sjögren's Syndrome (SS) although available classification criteria intended for research purposes help guide the diagnosis. Major salivary gland ultrasound (MSGUS) may contribute to SS diagnosis.

Objectives: To study the performance of MSGUS for the clinical diagnosis of SS and its relationship with other relevant markers of disease.

Methods: We included patients with a clinical suspicion of SS that underwent MSGUS evaluation at our Department. Parotid and submandibular glands were classified bedside on a 0-4 scale, based on tissue inhomogeneity. The score of the highest graded gland was considered and a score ≥ 2 was defined as a positive MSGUS. Minor salivary gland biopsy (mSGB) was considered positive if a focus score ≥ 1 was reported. We compared MSGUS findings across diagnoses and against mSGB result and anti-SSA status. Categorical variables were compared using the chi-square test. Continuous variables were compared using Student's t-test, Mann-Whitney U test, or ANOVA. P-value was considered significant at <0.05 .

Results: A total of 219 patients were included (Table 1). MSGUS was positive in a higher proportion of patients with primary and secondary SS, in comparison to non-Sjögren's sicca syndrome (nSSS) and undifferentiated connective tissue disease (UCTD; $p<0.001$). Mean MSGUS score was higher in SS patients in comparison to nSSS and UCTD ($p<0.001$). A positive MSGUS was associated with anti-SSA positivity (61.4% vs 38.6% in anti-SSA negative patients; $p<0.001$). Patients positive for anti-SSA had a higher mean MSGUS score (2.12 ± 1.03) in comparison with anti-SSA negative patients (1.31 ± 0.97 , $p<0.001$). While MSGUS and mSGB were not significantly associated ($p=0.237$), the mean MSGUS score was higher in patients with a positive mSGB (1.95 ± 1.17) in comparison with those with a negative mSGB (1.61 ± 0.99 ; $p=0.027$).

Table 1. General sample characteristics

	Overall (n=219)	pSS (n=131)	sSS (n=17)	nSSS (n=62)	UCTD (n=9)	p-value
Age, years (mean $\pm$ sd)	60 $\pm$ 14	58 $\pm$ 17	56 $\pm$ 19	60 $\pm$ 13	48 $\pm$ 16	0.07
Female, n (%)	210 (95.9)	127 (97.0)	15 (88.2)	59 (95.2)	9 (100)	<0.001
Anti-SSA positive, n (%)	105 (47.9)	91 (69.5)	10 (5.8)	3 (4.8)	1 (11.1)	<0.001
Positive mSGB, n (%)	85 (46.4)	69 (63.3)	7 (46.7)	8 (15.7)	1 (12.5)	<0.001
MSGUS score, mean $\pm$ sd	1.70 $\pm$ 1.09	1.98 $\pm$ 1.09	1.76 $\pm$ 1.11	1.13 $\pm$ 1.09	1.44 $\pm$ 1.12	<0.001
Grade 0, n (%)	35 (16.0)	17 (13.0)	3 (17.7)	15 (24.2)	0 (0.0)	<0.001
Grade 1, n (%)	62 (28.3)	25 (19.1)	4 (23.5)	27 (43.6)	6 (66.7)	
Grade 2, n (%)	62 (28.3)	39 (29.8)	4 (23.5)	17 (27.5)	2 (22.2)	
Grade 3, n (%)	54 (24.7)	44 (33.6)	6 (35.3)	3 (4.9)	1 (11.1)	
Grade 4, n (%)	6 (2.7)	6 (4.6)	0 (0.0)	0 (0.0)	0 (0.0)	
MSGUS score ≥ 2 , n (%)	122 (55.7)	89 (67.9)	10 (58.8)	20 (32.3)	3 (33.3)	<0.001

Conclusion: MSGUS is a valuable resource in the investigation of SS. It is associated with clinical diagnosis, anti-SSA and MSGUS findings. Together with these other complementary exams, it can be used to assist in the diagnosis of patients presenting with sicca features suggestive of SS.

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POS0782

FOLLICULAR DENDRITIC CELL NETWORKS IN MINOR SALIVARY GLAND BIOPSIES: A MARKER OF DISEASE ACTIVITY AT BASELINE AND DURING THE FOLLOW-UP IN SJÖGREN'S SYNDROME

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Background: Minor salivary gland biopsy (MSGUS) has been increasingly recognized as an important tool for the stratification of patients with primary Sjögren's syndrome (pSS). Recently, the presence of follicular dendritic cell (FDC) networks in the inflammatory infiltrate has been associated with more severe biological and serological abnormalities compared with less organized infiltrates.

Objectives: To investigate the associations between the presence and number of FDC networks in foci and pSS glandular and extra-glandular disease activity at baseline and during the follow-up.

Methods: Consecutive MSGUS performed in daily practice for clinically suspected pSS from January 2017 to October 2020 were reviewed. Patients' demographic, clinical, biological and serological data were obtained from medical records. The ESSDAI was used to measure disease activity at baseline and at the end of the follow-up in pSS patients. For histopathology, 3 μ m sections were cut from each formalin-fixed paraffin-embedded block of MSGUS and stained with haematoxylin and eosin (H&E). Immunohistochemical stainings were performed on additional 3 μ m sections in order to detect T lymphocytes (CD3), B lymphocytes (CD20) and follicular dendritic cells (CD21). Glandular tissue areas, number of foci, focus score (FS) and the presence and number of FDC networks were assessed.

Results: We reviewed 330 consecutive MSGUS from patients with suspected pSS: out of them 146/330 (44%) were classified as nonspecific chronic sialadenitis (NSCS) whereas 184/330 (56%) as focal lymphocytic sialadenitis (FLS). According to the ACR/EULAR criteria the diagnosis of pSS was confirmed in 130 patients (117 F/13M, age 56 ± 13 yrs). The mean (S.D) surface area of the MSGUS was 7.8 (3.9) mm^2 . The number of foci in the FLS samples ranged from 1 to 12 (mean (S.D)= 3.1 (2.6)), whereas the FS ranged from 0.3 to 9.0 (mean (S.D) = 1.4 (1.2)). The presence of FDC networks was documented in 106/330 (32%) of the samples; in 54/106 (51%) of these MSGUS the number of FDC networks ranged from 2 to 8 (mean (S.D)= 3.1 (1.4)). The number of FDC networks significantly correlated with the number of foci ($r=0.721^{**}$) and FS ($r=0.707^{**}$). Patients with FDC networks in the inflammatory infiltrate presented more serological abnormalities (i.e. anti-Ro/SSA, anti-LA/SSB, Rheumatoid factor) and elevated IgG levels ($p<0.001$). In pSS patients, the number of FDC networks slightly correlated also with C4 levels ($r=0.216^{*}$), peripheral lymphocyte count ($r=-0.274^{**}$) and with glandular ($r=0.213^{*}$), and biological ($r=0.230^{**}$) domains of the ESSDAI at baseline. After a mean (S.D) follow-up of 21(13) months, the number of FDC networks still correlated with the final total ESSDAI ($r=0.312^{**}$).

Conclusion: The presence and number of FDC networks in foci represent a useful histopathological parameter able to reflect disease activity at baseline and during the follow-up, thus allowing more personalized interventions.

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