The expression of inhibitory KIRs was significantly lower in SLE patients (2.83±2.8%) compared to controls (5.54±2.01%) *(P*=0.001) While, stimulatory KIRs were significantly higher in SLE patients (3.2±3.7%) than controls (1.02±0.5%), (*P*=0.001). Active SLE patients showed significantly increased expression of stimulatory KIRs (5.29±4.29%) than inactive patients (1.13±0.89%), (*P*=0.004). However, inhibitory KIRs were significantly decreased in active (1.28±1.32%) than inactive SLE patients (4.38±3.05%), (*p*=0.003).
Expression of stimulatory KIRs correlated positively with ESR (*r*=0.3, *P*=0.04) and negatively with C4 (*r*=-0.4, *P*=0.01). In contrast, inhibitory KIRs correlated negatively with ESR (*r*=-0.5, *P*=0.003) and positively with C4 (*r*=0.4, *P*=0.02).
Using Receiver operating characteristic (ROC) curve analysis, expression of inhibitory KIRs on NKT-cells predicted disease activity at a cut-off value of ≤1.7% with 80% sensitivity and 80% specificity *(P*=0.001). While, expression of stimulatory KIRs on NKT-cells predicted active disease at a cut-off value of >1.4%, sensitivity (85%), and specificity (80%) *(P*=0.001*)*.
Conclusions: SLE activity is associated with an increased expression of stimulatory KIRs as well as a decreased expression of inhibitory KIRs on NKT cells. This may play a role in the pathogenesis of flares and acceleration of disease activity in SLE and could be a therapeutic target for SLE patients.
Disclosure of Interest: None declared
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SAT0305 HISTOLOGY OF MINOR SALIVARY GLANDS IN PATIENTS WITH SJÖGREN'S SYNDROME, ASSOCIATION WITH CLINICAL AND LABORATORY ASPECTS

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Background: Minor salivary gland (MSG) biopsy represents an useful tool not only for the diagnosis of primary Sjogren's Syndrome (pSS) but also to evaluate patients prognosis. Recognition of germinal centers (GCs) by hematoxilin eosin (HE) and/or IHC staining for follicular dendritic cells (FDC) detection is mandatory, representing a risk factor for lymphoma development. Focus score (FS) is one of the main instrument to quantify MSG impairment, nonetheless quality information regarding the type of infiltrate such as the entity, structure and localization, are lacking.
Objectives: Aim of this study is to find any association of specific histological features of MSG from patients with pSS with the principal clinical and laboratory features. Moreover, to investigate the utility of histological parameters, other than FS or GCs, for characterizing patients.
Methods: Patients with pSS were enrolled in our SS clinic, and clinical/laboratory data (table) referring to the time of MSG biopsy, gathered on a dedicated database. MSG, removed for diagnostic purposes, were preserved as paraffin embedded tissue, then cut and sequentially stained by H&E and IHC [polyclonal rabbit anti-CD3 (lymphocytes T); monoclonal mouse anti-CD20 (lymphocytes B); monoclonal mouse anti-CD21 (FDC)]. Images were collected by Zeiss Axio Scan and analysed (ZEN software) as follows: FS calculation, mean foci area, percentage of infiltration, presence of segregated foci (SF) (specifically, clear evidence of T and B cells area by CD3-CD20 double staining), GCs and lymphoepithelial lesions (LELs) detection.
Results: 53 MSG from patients with pSS were collected and analysed. Patients clinical and laboratory data are reported in table. FS positively correlated with the percentage of infiltration (p<0.001) as well as with the presence of SF (p=0.005), GCs (p=0.02) and LELs (P=0.005). Mean foci area and percentage of infiltration correlated with SF (p=0.0002 and p<0.001, respectively), GCs (p=0.0004 and p<0.001, respectively) and LELs (both p<0.001). SF correlated with GCs and LEL (p<0.001). Anti nuclear antibodies (ANA) were associated with the presence of SF (p=0.029, OR=5.7 CI=1.1–28.8) while gland swelling was associated with the presence of GCs (p=0.043, OR=4, CI=1.1–15).

Clinical features	Number (%)
Sex (M/F)	4/49
Mean age at diagnosis (mean±SD, years)	54.9±12.1
Xerophtalmia	47/53 (88.6)
Xerostomia	47/53 (88.6)
Salivary gland swelling	16/53 (30.1)
Arthritis	8/53 (15)
Lymphoma	0/53 (0)
Purpura	2/53 (3.7)
PNS and/or CNS involvement	1/53 (1.8)
Pancreatitis	1/53 (1.8)
Laboratory features	
ANA	39/53 (73.6)
Anti-Ro/SSA	17/53 (32.1)
Anti-La/SSB	14/53 (26.4)
Hypergammaglobulinaemia	18/53 (33.9)
Rheumatoid factor	10/53 (19)
Leukopenia	8/53 (15)
Hypocomplementemia	6/53 (11.3)
Monoclonal component	8/53 (15)
Cryoglobulinaemia	2/53 (3.7)

Conclusions: The FS was associated with the presence of GCs and LELs, as well as with more organized infiltrates characterized by segregation in T and B areas (SF), thus representing an useful tool which mirrors the risk of lymphoma. From our study, the qualitative characteristics of the biopsy, including SF, percentage of infiltration or the mean foci area, appear to be strictly linked. Moreover, their association with the presence of GCs and LELs supports the importance to consider also these features during histological examination. The lack of correlation between histological parameters and clinical/laboratory features might reveal a weaker connection between histological findings and specific SS phenotypes except for the relationship between glandular swelling and GCs which confirms how this clinical aspect should be considered as a risk factor for lymphoma development.
Disclosure of Interest: None declared
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SAT0306 ASSOCIATION BETWEEN QUALITY OF SLEEP, QUALITY OF LIFE AND DISEASE ACTIVITY IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Systemic Lupus Erythematosus (SLE) patients are known to have sleep disturbances. Quality of sleep may affect quality of life, but this association has not been systematically evaluated.
Objectives: The aim of this study was to examine the association of quality of sleep, quality of life and SLE disease activity in patients diagnosed with SLE.
Methods: 132 SLE patients with a confirmed diagnosis of SLE according to the ACR classification criteria were enrolled in this study. The patients completed the following questionnaires: the Pittsburgh Sleep Quality Index (PSQI), the 12 item Short Form Health Survey (SF-12), the Lupus Patient-Reported Outcome tool (LupusPRO), SLE Quality of Life Questionnaire (SLE - QoL). Clinical information, including the SLE Disease Activity Index (SLEDAI), was obtained from medical records. Student's t-test, ANOVA, Pearson correlation measured were used in statistical analysis.
Results: The majority of the participants (84,4%) had sleep disturbances (PSQI >5). Total PSQI score was weakly associated with all of the SF-12 subcategories and showed weak to moderate associations with the LupusPRO subcategories (r <0,05), except for "medication" (r <0,20). "Sleep duration" was not associated with any of the SF-12 or LupusPRO subcategories. "Sleep efficiency" was weakly associated with "physical health", "physical function", and "pain" in the SF-12 and LupusPRO. "Sleep quality" and "sleep disturbances" were weakly associated with "pain" and the "emotional" and "mental" subcategories in the SF-12 and LupusPRO. SLE - QoL was significantly higher in patients with good sleep.
Conclusions: We found that quality of sleep, especially "sleep efficiency", was poor for the majority of patients with SLE. Quality of sleep was associated with various aspects of quality of life, especially pain, vitality, and emotional health. Management of pain and emotional health may be important for improving quality of sleep in SLE patients.
Disclosure of Interest: None declared
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SAT0307 RECURRENCE RATE OF THROMBOSIS FOR PATIENTS WITH ANTI-PHOSPHOLIPID ANTIBODIES INITIALLY AND DISAPPEARED LATER AFTER THROMBOSIS

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Background: In case of anti-phospholipid syndrome, anticoagulants are recommended. However, there were no data about recurrence rate for thrombosis in patients with anti-phospholipid antibodies (APS) initially which disappeared later.
Objectives: We compared recurrence rate of thrombosis between negative conversion group and control group.
Methods: We reviewed the medical records of patients diagnosed with thrombosis such as cerebral infarct, myocardial infarct, deep vein thrombosis, or thrombosis of other vessels at a tertiary medical center from 2000 to October 2016. Of these, 14 patients whose APA status was converted from positive to negative after more than 12 weeks were enrolled as negative conversion group. Forty-six patients without APA were matched with the ratio of 1:3∼1:4 according to age, sex, thrombosis type (arterial or venous) and therapeutic agents as control group.
Results: There was no difference between negative conversion group and control group in smoking status, presence of diabetes or hypertension, duration from the thrombosis to last visits or to recurrence, the proportion of patients taking glucocorticoids. There was no difference in the overall recurrence of thrombosis between two groups [negative conversion group, 3/14 (21%) vs. control group,

6/46 (13%), p=0.423]. In the negative conversion group, the number of patients diagnosed with SLE was significantly higher than the control group [SLE, 3/14 (21%) vs. 1/46 (2%), p=0.036]. However, thrombosis had recurred in one out of three patients with SLE.
Conclusions: The cumulative incidence of thrombotic events was not significantly different between negative conversion group and control group.
Disclosure of Interest: None declared
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SAT0308 CLINICAL, BIOLOGICAL AND IMMUNOLOGICAL FEATURES OF SJÖGREN SYNDROME: A STUDY OF 270 TUNISIAN PATIENTS

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Background: Sjögren syndrome (SS) is a chronic autoimmune disease characterized by a sicca syndrome and a wild spectrum of extra-glandular manifestations.
Objectives: The aim of this study was to describe clinical, biological and immunological characteristics of patients with SS and to compare them in primary and associated SS.
Methods: We conducted a monocentric, retrospective study over a period of 15 years. Patients who fulfilled the American European Consensus Group criteria for Sjögren syndrome were enrolled.
Results: SS was diagnosed in 270 patients. The sex-ratio female/male was 10.73. The mean age at disease onset was 45 years +/- 13 years (range 15–74 years) and at diagnosis was 47 years +/- 13 years (range 15–76) with a mean delay of 3 years (range 0–25 years). Sicca syndrome revealed the disease in most cases; both ocular and buccal dryness (n=48), xerophtalmia (n=21), xerostomia (n=21) or parotid gland swelling (n=17). SS was also revealed by joint involvement (n=39), neurological manifestations (n=26) or interstitial lung disease (n=14). SS was systematically screened in 27 patients with another autoimmune disease and was found in 3 mothers who had a child with congenital atrio-ventricular bloc. Patients complained of xerophtalmia and xerostomia in respectively 95.2% and 95% of cases. Minor salivary biopsy was positive in 92.6% of cases. Parotid gland swelling was noted in 40 cases. Arthralgia and arthritis were respectively noted 77% and 18% of cases whereas myalgia and myositis were found in 11% and 5% of patients. Patients had pulmonary involvements in 27% of cases. Peripheral and central nervous system involvements were confirmed in 22% and 13% of cases and 12 patients presented with psychiatric disorders. Raynaud's phenomenon and purpura were noted in 48 and 17 patients. Biological data showed lymphopenia (n=115), anemia (n=83), thrombocytopenia (n=25) and hypergammaglobulinemia (n=151). Antinuclear antibodies were positive in 210 cases; anti-SSA and anti-SSB were present in respectively 57% and 37% of patients. SS was primary in 155 patients and was associated to another autoimmune disease in 113 patients; systemic lupus erythematosus (n=48), rheumatoid arthritis (n=20), systemic sclerosis (n=19), autoimmune liver disease (n=13) and auto-immune thyroiditis (n=9). Arthralgia (91.2% vs 66.2; $p<0.0001$), arthritis (35.7% vs 5.2%; $p<0.0001$), myalgia (17% vs 7.1%; p=0.012) and Raynaud's phenomenon (33.3% vs 7.7%; $p\leq0.0001$) were significantly less frequent in primary SS. Lymphopenia (61.1% vs 32.9%; $p<0.0001$), anemia (48.6% vs 19.5%; $p<0.0001$), inflammatory syndrome (35.8% vs 17.9; p=0.002) and ANA (92% vs 70.9%; $p<0.0001$) were significantly more frequent in associated SS. Corticosteroids and immunosuppressive therapy were used in respectively 141 and 90 patients because of severe complications. Only 3 case of lymphoma were observed and 3 patients died. The mean duration of follow up was 50 months.
Conclusions: Sicca syndrome is the major symptom of SS but extra-glandular manifestations are less frequent and can be serious causing disability specially neurologic and pulmonary involvements. Some manifestations are significantly more frequent in patients with associated autoimmune diseases like joint involvements, Raynaud's phenomenon, anemia and lymphopenia. These manifestations are mainly related to SLE, rheumatoid arthritis and systemic sclerosis.
Disclosure of Interest: None declared
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SAT0309 CAN WE FORESEE SLE IN ITP PATIENTS? TO DISTINGUISH ITP PATIENTS WITH HIGH RISK OF SLE BY A NATIONWIDE COHORT STUDY-BASED DECISION TREE

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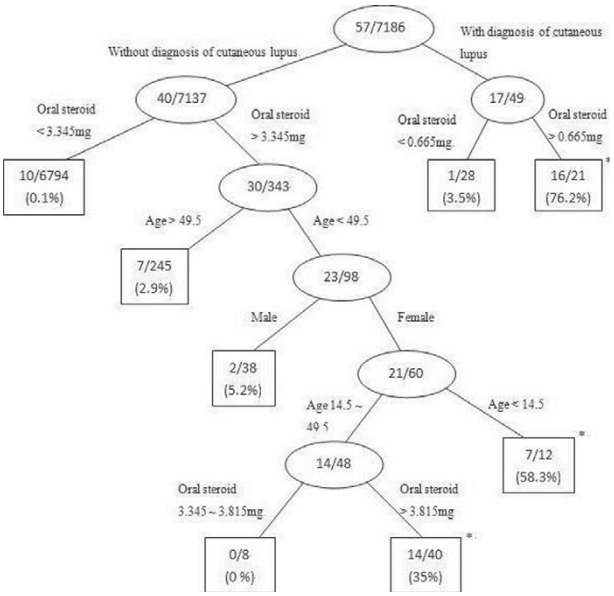
Background: Immune thrombocytopenic purpura (ITP) is an autoimmune-associated thrombocytopenia which is occasionally the initial presentation of systemic lupus erythematosus (SLE), and thus periodical following up has been suggested. Whereas long-term surveillance on all ITP patients would be time and cost-consuming, and thus to distinguish those with high probability of SLE development among ITP patients should be more practical.
Objectives: To distinguish ITP patients with high risk of SLE development by a decision tree model.
Methods: We enrolled ITP patients without previous SLE diagnosis from the National Health Insurance research database between 1997 and 2012 and identified those certificated with catastrophic illness of SLE during follow up, by which the diagnosis was reconfirmed by another rheumatologists. We also analyzed the symptoms and comorbidities as well as the dose of average oral steroid to derive the decision trees, which classified the ITP patients with different probability of development of SLE.
Results: A total of 10,265 ITP patients were enrolled, among whom 80 patients developed SLE while following-up. The whole ITP patients were allocated to training group (7,186 patients including 57 with SLE) and testing group (3,079 patients including 23 with SLE); the former was used for derivation of the decision-tree based model and the latter for validation of the previously mentioned model, and provided high sensitivity (78.2%), specificity (99.2%) and negative prediction value (99.8%, Fig.). To reduce the complexity, we also pruned our decision tree to propose less-complicated models.



Conclusions: We derived classification decision tree suitable for various clinical scenarios of ITP patients, among whom those with high probability of development of SLE would be distinguished.
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SAT0310 ULTRASONOGRAPHIC SCORING OF THE MAJOR SALIVARY GLANDS IN SJOGREN'S SYNDROME: A COMPARATIVE STUDY WITH DISEASE ACTIVITY INDEXES

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Background: Sjogren's syndrome (SjS) is characterised by chronic autoimmune inflammation primarily affects the salivary and lacrimal glands. Recently, ultrasonography (USG) of major salivary glands (SG-USG) has been used to evaluate salivary glands in primary and secondary SjS.
Objectives: We aimed to investigate the association between the ultrasonographic scoring of major salivary glands and disease activity indexes in patientswith primary SjS.
Methods: Forty-two primary SjS patients fulfilling ACR-EULAR classification criteria (2002) were included. Disease activity indexes (Sjögren's Syndrome Patients Reported Index (ESSPRI), Visual Analogue Scale (VAS), EULAR Sjögren's Syndrome Disease Activity Index (ESSDAI)] were recorded. Major salivary glands (bilateral parotis and submandibular glands) were scored according to two different scoring system [Hocevar A. (0–48) ve Milic VD. (0–12)].
Results: Demographics, clinical characteristics, disease activity indexes and SG-USG scores were summarised in table 1 and table 2.