between SLE patients with history of HZ and patients who had never had experienced HZ.

**Results:** A total of 229 patients with predominantly Malay patients (n=123, 53.7%), followed by Chinese (n=90, 39.3%) and others (n=16, 7.0%) were included. A total of 37 patients had history of HZ (16.2%). Their mean age during HZ episode was 34.4 ± 13.8 years and their SLE disease duration was 68.7 ±57.1 months. More than half of them (n=21, 56.8%) developed HZ when the SLE disease was active with the mean dose of prednisolone at the time of infection was 20.7 ± 9.2 mg daily. A total of 21 HZ patients (56.8%) had ever received cyclophosphamide with the median interval of the last infusion was 6 (0.2-84) months. Almost half of the HZ patients (n=18, 48.6%) developed the infection while on cyclosporine A. Meanwhile, 4 (10.8%) were on azathioprine and mycophenolate mofetil respectively. Chinese patients tend to have HZ as compared to other ethnics (27% vs 41.7%), p=0.07. HZ occurred in a higher proportion among male patients (29%) as compared to female patients (14.1%), p=0.05. The use of azathioprine (10.8% vs 55.2%, p<0.01) and mycophenolate mofetil (10.8% vs 31.8%, p=0.009) were less associated with HZ. On the other hand, the use of cyclosporine A (48.6% vs 32.3%, p=0.05) and prednisolone ≥ 60mg daily (44.4% vs 28%, p=0.04) were associated with HZ. Higher HZ patients had hematological manifestation (81.1% vs 62.5%, p=0.04) and positive lupus anticoagulant (LA), 32.4% vs 14.6%, p=0.02. A forward logistic regression which included all factors with p<0.1 in the univariate analyses revealed that the use of prednisolone ≥ 60mg daily and hematological manifestation were the independent predictors of HZ with OR= 2.28 (95% C.I = 1.01-5.17), p=0.049 and OR= 2.78 (95% C.I = 1.09-7.04), p=0.03 respectively. The use of azathioprine was associated with a lower risk of HZ with OR 0.08 (95% C. I= 0.03-0.25), p=<0.01.

**Conclusion:** Our study demonstrated the possible influence of male gender, Chinese ethnicity and disease characteristics such as hematological manifestation and lupus anticoagulant positivity with the occurrence of HZ. In addition, the use high dose oral prednisolone ≥ 60mg daily was the independent predictor of HZ while on the other hand, the use of azathioprine was associated with a lower risk of developing HZ as compared to other immunosuppressive agents. Further larger studies are needed to confirm these associations.

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## POS0724 GENDER DIFFERENCES IN THROMBOTIC PRIMARY ANTIPHOSPHOLIPID SYNDROME IN A LARGE COHORT OF PATIENTS FROM FOUR EUROPEAN CENTERS

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**Background:** Autoimmune diseases occur more frequently in females and their course and severity can be affected by gender. Antiphospholipid syndrome (APS) is a systemic autoimmune disorder in which antiphospholipid antibodies (aPL) exert a pathogenic role resulting in vascular thrombosis and/or pregnancy morbidities. Data about gender differences in thrombotic APS (t-APS) are still scarce[1,2].

**Objectives:** To evaluate the differences in frequency, disease expression and severity between females and males affected by primary t-APS.

**Methods:** Retrospective study enrolling subjects with a formal diagnosis of primary APS (Miyakis 2006) with vascular thrombosis at onset. Women who presented with obstetric events as first aPL-related manifestation were excluded. All the patients were followed from 1967 to 2019 in four European centers: three French centers and one Italian center.

**Results:** The study included 433 patients (68% females, 32% males). Median age at t-APS onset [31 (24-46) vs 41 (29-53) years, *p<0.001*] and at diagnosis [34 (27-50) vs 46 (34-57) years, *p<0.001*] was significantly lower in females.

The most common presenting manifestations were venous thrombosis (60%) followed by arterial events (37%) and catastrophic APS (3%). Venous events were more frequent in women as compared to men (64% vs 51% *p:0.012* OR:1.7 [1.1-2.5]). Sites of venous thrombosis included: limbs (35%), pulmonary (17%), cerebral (3%), portal and inferior cava (2%) and retinal (1%) veins, without gender differences. The arterial events were more frequent among men (43% vs 34% *p:0.053*). Strokes (27%) and myocardial infarctions (4%) were the most frequent manifestations, followed by thrombosis of limbs (2%), retina (2%) and abdominal organs (1%). Noteworthy, only men presented with visceral ischemia. During the follow-up, new thrombosis occurred in 41% of patients (179/433). 33% out of them had at least two episodes and these occurred especially among males (22% vs 10% *p:0.001* OR:2.5 [1.3-4.8]). New events were mostly of the same type, but ⅓ of patients presented a switch from venous to arterial side and viceversa, with no gender differences.

Complete aPL profile was available in 357 subjects: 33% had single aPL positivity, 24% double positivity and 43% triple positivity, with no differences between women and men. About 80% of the patients had a concomitant risk factor (RF) for thrombosis. Established cardiovascular RFs were more represented among men as shown in table 1. In women, estrogenic exposure was the main RFs, present in almost 40% of them.

**Table 1.**

| | MALES n= 137 | FEMALES n= 296 | *P* OR [IC 95%] |
|---|---|---|---|
| **Traditional cardiovascular RFs, n (%)** | | | |
| Smoke | 66 (48) | 81 (27) | *<0.001* 2.5 [1.6-3.8] |
| Arterial hypertension | 59 (43) | 75 (25) | *<0.001* 2.2 [1.5-3.4] |
| Dyslipidemia | 52 (38) | 72 (24) | *0.004* 1.9 [1.2-2.9] |
| Diabetes | 16 (12) | 15 (5) | *0.014* 2.5 [1.8-5.1] |
| Obesity | 13 (10) | 38 (13) | *ns* |
| **Other thrombophilic factors, n (%)** | | | |
| Estrogenic stimuli* | 0 | 116 (39) | - |
| Trauma / surgery / immobilization | 21 (15) | 32 (11) | *ns* |
| Congenital thrombophilia | 9/94 (10) | 33/204 (16) | *ns* |

Data were compared using contingency tables, *p value* was calculated with Chi-Squared or Fisher exact test. *= hormonal therapy, pregnancy, post-partum

**Conclusion:** This gender-oriented analysis of patients with primary t-APS showed that women had the first vascular event at a younger age and mostly on the venous side, while men presented mainly with arterial events, later in life and suffered from more recurrent events. No differences were observed in the distribution of the aPL profile. The different frequency of arterial and venous events in the two groups could be attributed mainly to the presence of additional RFs rather than to biological gender-specific issues. However, it should be underlined that some RFs, such as the use of estrogens or classic cardiovascular RFs, are exclusive or more represented in one gender rather than the other, making it difficult to assess the link of causality between gender and manifestations of t-APS.

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## POS0725 CLINICAL AND IMMUNOLOGICAL CHARACTERISTICS OF PATIENTS WITH JUVENILE-, ADULT- AND LATE-ONSET SYSTEMIC LUPUS ERYTHEMATOSUS

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**Background:** Systemic lupus erythematosus (SLE) predominantly develops in women of child-bearing age. However, nearly 20% of cases present during childhood, generally after puberty (juvenile-onset SLE, JSLE). On the other hand, 10-20% of patients develop SLE after the age of 45-50 years (late-onset SLE, LSLE) [1]. It is known that age at disease onset can influence the clinical presentation and course of SLE, but the findings are not always consistent across the studies [2].

**Objectives:** The aim of this study was to evaluate the spectrum of clinical manifestations and autoantibody profile in patients with SLE in the central region of Ukraine regarding age at onset.

**Methods:** The study included 258 SLE patients before starting an adequate therapy, comprising 225 females (87.2%) and 33 males (12.8%). The median age at SLE onset was 28 (20-39) years. The patients were classified into 3 groups: I – age at SLE onset ≤18 years (JSLE; n=52; 20.2%), II – SLE onset at age 19-44 years (adult-onset SLE, ASLE; n=161; 62.4%), III – age at disease onset ≥45 years (LSLE; n=45; 17.4%). The clinical and demographic data, SLE Disease Activity Index (SLEDAI), erythrocyte sedimentation rate (ESR), C-reactive protein

(CRP) and autoantibody profile were analyzed. Quantitative and categorical data were compared using Kruskal-Wallis test and chi-square test, respectively.
**Results:** There was a difference in prevalence of malar rash between the groups (p=0.022): it was more common in JSLE (40.4%) and ASLE (34.4%) than in LSLE patients (15.6%; p=0.04 and 0.05, respectively). Similar distribution was found for renal involvement: JSLE and ASLE patients presented higher rates of nephritis (55.8% and 49.4%, respectively) than LSLE patients (23.8%; p=0.012 and 0.014, respectively). But the groups did not differ significantly with regard to nephrotic syndrome (p=0.224). ASLE was associated with more frequent alopecia (38.8%) comparing with JSLE (19.2%; p=0.04). Moreover, ASLE patients also had the highest frequency of lymphadenopathy (56.3%) whereas in LSLE it was observed only in 25.0% of patients (p=0.001). Serositis was more common in LSLE (54.5%) and ASLE (43.8%) than in JSLE (23.1%; p=0.011 and 0.034, respectively). Although secondary Sjögren's syndrome was more frequently observed in ASLE (7.6%) and LSLE (7.3%) than in JSLE (0.0%), the difference did not achieve statistical significance (p=0.157). Also, no differences were observed in the occurence of arthritis, pulmonary and neurological manifestations, constitutional symptoms, SLEDAI score among the groups. Median CRP level in LSLE was significantly higher (14.0 (1.1-46.4) mg/L) than in JSLE (0.7 (0.0-12.0) mg/L) (p<0.05). But all groups did not differ significantly with regard to ESR levels. When differences in antinuclear antibodies were analyzed, we disclosed that the frequency of anti-dsDNA positive results was significantly higher in JSLE (68.6%) and ASLE (70.1%) patients when compared with that found in LSLE patients (31.3%) (p=0.016 and 0.001, respectively). There were no significant differences between groups with regard to positivity for other antibodies (anti-Sm, -Ro, -La, -RNP, antiphospholipid antibodies).
**Conclusion:** JSLE and ASLE patients are more likely to have malar rash, nephritis and anti-dsDNA positivity. Alopecia and lymphadenopathy are most frequent in ASLE patients. JSLE are far less likely to have serositis than any other group. Patients with LSLE demonstrate comparatively low frequency of major organ involvement, but they have higher levels of CRP.
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## POS0726 POST-TRAUMATIC STRESS DISORDER AND QUALITY OF LIFE IN SYSTEMIC LUPUS ERYTHEMATOSUS. A CROSS SECTIONAL WEB SURVEY-BASED STUDY

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**Background:** Exposure to severe or chronic life stressors may alter immune function and high levels of subsequent distress have been implicated in autoimmune disease pathogenesis. Post-traumatic stress disorder (PTSD) is a debilitating psychiatric condition affecting 1-12% of the general population[1], occurring in response to traumatic events. Growing evidence supports an association between trauma exposure and PTSD with systemic lupus erythematosus (SLE) onset[2].
**Objectives:** To cross-sectionally assess PTSD prevalence in a cohort of patients with SLE and to examine its correlation with quality of life.
**Methods:** A 189-item anonymous questionnaire including demographics, disease features, the 9-domain Trauma and Loss Spectrum – Self Report (TALS-SR) and the 8-domain Lupus Quality of Life (Lupus QoL) was administered via web to a cohort of patients with SLE. Patients were classified as PTSD cases based on TALS-SR items corresponding to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria for PTSD.
**Results:** Ninety-nine (95% female and 5% male) patients with a median follow-up of 16.5 years completed the questionnaire. Self-reported fatigue prevalence was 75%. Fifteen patients (15%) reportedly were on psychological and/or psychiatric support. Thirty-one patients (31%) met the DSM-5 criteria for PTSD. The average LupusQoL interdomain score was 80/100. PTSD cases reported significantly lower scores compared to non-cases in three LupusQoL domains: planning (83 vs. 100, p=0.035), body image (85 vs. 95, p=0.031), and fatigue (67 vs. 92, p=0.001). An inverse correlation between TALS-SR scores and Lupus QoL subscales was found (Table1). In particular, the degree of stress secondary to losses or upsetting events was strongly correlated to fatigue intensity (rho= -0.458, p<0.001).
**Conclusion:** PTSD prevalence might be higher in SLE than in the general population and have a detrimental influence on quality of life. Fatigue perception might be more significantly affected by PTSD. Intervention studies are needed to assess the therapeutical effects of psychological support in patients with SLE.
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**Table 1. Spearman rho coefficients outlining correlation across Lupus QoL and TALS-SR domains. The highest negative correlation has been found between fatigue and reaction to traumatic events. Significant correlations boxes are coloured in yellow (weak, rho 0.20-0.39) and red (moderate, rho 0.40-0.59). * p<0.05, ** p<0.01.**

| | | LupusQoL Domains | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Physical health | Pain | Planning | Intimate relationships | Burden to others | Emotional health | Body image | Fatigue | Lupus QoL Total Score |
| **TALS-SR Domains** | Loss events | -.217 | -.217 | -.096 | -.031 | .047 | -.022 | .076 | -.009 | -.061 |
| | Grief reactions | -.145 | -.104 | -.041 | -.018 | -.124 | -.172 | -.192 | -.149 | -.107 |
| | Potentially traumatic events | .039 | -.082 | -.169 | -.167 | -.207 | -.185 | -.046 | -.229 | -.096 |
| | Reaction to losses or upsetting events | -.221 | -.256* | -.289* | -.218 | -.290* | -.369** | -.371** | -.458** | -.341** |
| | Re-experiencing | -.139 | -.215 | -.245* | -.228 | -.320** | -.275* | -.287* | -.342** | -.274* |
| | Avoidance and numbing | -.176 | -.246* | -.279* | -.257* | -.337** | -.405** | -.413** | -.406** | -.338** |
| | Maladaptive coping | -.190 | -.238 | -.294* | -.282* | -.324** | -.340** | -.358** | -.405** | -.327** |
| | Arousal | -.134 | -.177 | -.263* | -.320** | -.283* | -.279* | -.321** | -.397** | -.282* |
| | Personal characteristics / risk factors | -.044 | -.115 | -.266* | -.189 | -.409** | -.231 | -.197 | -.253* | -.199 |

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## POS0727 INSULIN RESISTANCE AND LEPTIN LEVELS IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS WITHOUT DIABETES MELLITUS OR FASTING HYPERGLYCEMIA

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**Background:** Insulin resistance (IR) is considered as initial stage of diseases continuum from development of prediabetes to eventual progression to type 2 diabetes mellitus (T2DM). Individuals with prediabetes have also elevated leptin levels, so this adipocytokine along with IR can be considered as predictive laboratory markers of higher risk of T2DM. It is not yet clear whether presence of individual or multiple SLE-related and/or known traditional risk factors of T2DM (such as unhealthy diet, physical inactivity, family history of diabetes, or being overweight) can precipitate the development of IR.
**Objectives:** To analyze the relationship between IR and increasing leptin levels rates. To identify the presence and evaluate the potential role of traditional and disease-related risk factors for IR in SLE patients without T2DM or hyperglycemia.