conducted annually by a self-reported questionnaire since 2001. Inclusion criteria are a diagnosis of SLE and returning the completed paper questionnaire. Amongst others medication, comorbidities, health-related quality of life (HRQoL, Short-Form-12), and disease activity (Systemic Lupus Activity Measure) are surveyed. In the year 2015 we additionally inquired about participation using the "Index zur Messung von Einschränkungen der Teilhabe" (IMET; Index for measuring limitations of participation) that was developed on the basis of the International Classification of Functioning, Disability and Health (ICF), as well as depression (Centre for Epidemiologic Studies Depression Scale), and pain coping (Pain Related Self statements scale).

A multiple linear regression was run to predict overall impairment and impairment in the individual subdomains (dependent variables). Age, disease duration, number of comorbidities, pain, disease activity, catastrophizing, coping, depression, physical functioning, and physical and mental HRQoL were entered into our model as candidates for the independent variables. Variable selection was accomplished by a stepwise approach based on Akaike information criterion (AIC).

Results: The questionnaire was completed by 579 patients (response rate 89.2%). Only 48 (8.3%) reported no impairment of participation by their disease. Most limitations were reported in the domains 'stress and extraordinary strains' (56.3% reported moderate to high impairment) and 'sex life' (48.7%), whereas 'common activities of daily life' (21.1%) and 'close personal relationships' (26.5%) seemed to be limited less frequently.

Depression, physical functioning, and physical and mental HRQoL predicted overall participation (F-test, $p < 0.0001$).

Depression, physical functioning, and physical HRQoL predicted also most of the participation subdomains whereas age, disease duration, no. of comorbidities, disease activity, pain, and pain coping behaviour impacted only individual subdomains.

Conclusions: Limitations of participation are common in SLE patients and affect different areas of life. In order to improve participation, it is of great importance to maintain, respectively improve physical and mental quality of life, physical functioning, and depression. The direction of causality cannot be proved beyond reasonable doubt in this cross-sectional analysis. Additional longitudinal studies are necessary.

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SAT0435 PLASMA PTX3 LEVELS CORRELATE WITH SYSTEMIC LUPUS ERYTHEMATOSUS ACTIVITY AND ARE INFLUENCED BY CORTICOSTEROIDS

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Background: Systemic lupus erythematosus (SLE) is an autoimmune disease characterised by a variable involvement of multiple organs and tissues. Acute and/or chronic vascular inflammation is not uncommon in patients with SLE and can significantly affect patient quality of life and survival. Specific markers of vascular inflammation in SLE are lacking. Pentraxin-3 (PTX3) is an evolutionarily conserved pattern recognition receptor expressed by multiple cell lines and is growingly recognised as a marker of the vessel response to injury. Glucocorticoids are known inducers of PTX3 in most tissues. The role of PTX3 as a biomarker in SLE is discussed.

Objectives: To assess the potential informative role of PTX3 as a biomarker in patients with SLE with and without current or previous vasculitic manifestations and with active or quiescent disease.

Methods: We enrolled 55 adult patients with SLE for a total of 60 samples. Samples were classified as taken from patients with active disease (SLE disease activity index, SLEDAI, ≥ 4) with or without active vasculitis and from patients with quiescent disease (SLEDAI < 4). Further stratification was performed according to a history of lupus vasculitis. Five patients were bled twice under different conditions. Plasma PTX3 was measured by ELISA. Non-parametric tests were employed to compare PTX3 levels among groups.

Results: PTX3 plasma levels were slightly but not significantly more elevated in patients with active vasculitis. PTX3 levels correlated with SLEDAI in the whole set of patients ($p = 0.007$) and in those who were off corticosteroids ($p < 0.001$), but

not in patients receiving prednisone. PTX3 levels correlated with the dose of prednisone ($p < 0.001$). Patients with > 1 moderately-to-highly active (A, B) British Isles Lupus Assessment Group (BILAG) domain had significantly higher PTX3 levels than those with more limited disease activity extent ($p = 0.041$). PTX3 also correlated with a 0.0–3.0 physician global assessment scale (PGA), with patient-reported visual analogue scale, and inversely with C4 levels ($p = 0.004$, $p = 0.013$, $p = 0.001$ respectively). There was no significant correlation with age or disease duration nor with C-reactive protein (CRP). Similar to PTX3, CRP was higher in patients with > 1 A/B BILAG domain ($p = 0.004$), but did not correlate with SLEDAI or prednisone dose. Repeated samples showed a high intra-individual variability for PTX3, which unpredictably correlated with disease activity and prednisone dosage.

Conclusions: Our data suggest that PTX3 is a marker of active disease extent rather than vascular inflammation in SLE and it shares this behaviour with CRP, another member of the pentraxin family. Nonetheless, PTX3 also specifically correlate with monoparametric indexes of activity such as SLEDAI. A high intra-individual variability and the effect of corticosteroids constitute potential limitations to future diagnostic applications of PTX3 in SLE.

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SAT0436 TRANSJUGULAR RENAL BIOPSY: A SAFE AND EFFECTIVE WAY TO PERFORM RENAL BIOPSY IN SYSTEMIC LUPUS ERYTHEMATOSUS AND ANTIPHOSPHOLIPID ANTIBODY SYNDROME PATIENTS TREATED WITH ANTI-THROMBOTIC DRUGS – A MONOCENTRIC EXPERIENCE OF 256 PROCEDURES

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Background: Renal biopsy is the cornerstone of Lupus nephritis (LN) management. However, transcutaneous renal biopsy (TCRB) is hampered by the antithrombotic treatment frequently prescribed in Systemic Lupus Erythematosus (SLE) and Antiphospholipid Antibody Syndrome (APS). Transjugular renal biopsy (TJRB) offers an attractive alternative for patients at increased risk of bleeding.

Objectives: The primary objective of the study was to describe the safety and the diagnostic performance of TJRB in SLE and APS.

Methods: A retrospective review of SLE and/or APS patients who consecutively underwent a renal biopsy in our department between January 2004 and October 2016 was performed. Biopsies were divided into four groups: TCRB, TJRB with aspirin treatment (aspirin TJRB), TJRB with anticoagulant treatment (anticoagulant TJRB), and TJRB without anti-thrombotic drug (no-antithrombotic TJRB). Major complications were defined as death, haemostasis nephrectomy, renal artery embolization, blood transfusion, sepsis and vascular thrombosis. Minor complications were defined as gross haematuria, renal hematoma and arteriovenous fistula.

Results: Fifty-four TCRB and 256 TJRB were analysed – 69 aspirin TJRB, 68 anticoagulant TJRB and 119 no-antithrombotic TJRB. Major complications rate was 1.9% for TCRB and 2.0% for TJRB ($p = 1$). One patient in the TJRB group suffering from catastrophic antiphospholipid syndrome (CAPS) died suddenly 6 weeks after the biopsy. No patient died of bleeding complication. One patient in the anticoagulant TJRB group required a renal artery embolization and blood transfusion. Four other patients required blood transfusion (1 in the TCRB group, 1 in the aspirin TJRB group and 2 in the anticoagulant TJRB group). Minor complications rate was 1.9% for TCRB and 7.8% for TJRB ($p = 0.2$).

Among the 256 TJRB, the rate of complication (major or minor) was higher for patients with glomerular filtration rate CKD-EPI < 30 mL/min (6/24 [25%]) compared to patients with GFR > 30 mL/min (16/232 [7%], $p < 0.01$ using the Chi-2 test). Age over 40, blood pressure $> 140/90$ mmHg, APS or positive

antiphospholipid biology without APS, Prothrombin Time<50%, activated Partial Thromboplastin Time ratio >1.2, platelets<50 G/L and biopsied kidney size were not associated with a higher rate of complications.

The number of glomeruli sampled and the performance of the biopsy to establish a histologic diagnostic were similar in the 4 groups.

Conclusions: TJRB provides diagnostic yield and safety similar to those of TCRB. It should be considered as a first intention procedure for SLE and APS patients at risk of bleeding.

Disclosure of Interest: None declared

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SAT0437 INITIAL MANIFESTATIONS OF CHILDHOOD-ONSET SYSTEMIC LUPUS ERYTHEMATOSUS: RESULTS OF SINGLE CENTRE RETROSPECTIVE STUDY

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Background: Approximately 10%–20% of patients (pts) with SLE develop lupus before 18 years old. Childhood-onset SLE (cSLE) usually has more aggressive course. The achievement of medication-free remission in adulthood is extremely rare in cSLE and quality of life remains compromised.

Objectives: To establish the specific features of cSLE at disease onset by the retrospective study in single centre.

Methods: 216 pts with cSLE who were hospitalised in our centre from 1992 to 2017 were included in retrospective study. Diagnosis of SLE was reviewed according to 2012 SLICC criteria. Clinical, haematological and immunological manifestations of SLE were evaluated. SLEDAI 2K was used for disease activity assessment.

Results: 12.9% of cSLE pts were boys (girls to boys ratio was 6.7:1). The triggering factor was found in 29% pts: solar exposure – in 51%, previous infection – in 19%, stressful situation – in 12%, vaccination – in 10%, menarche – in 5%, high physical activity – in 3%. Only 9.2% of patients initially had SLE diagnosis, 1.4% had discoid lupus erythematosus as an initial diagnosis, 21% – different infections, 11.2% – allergic diseases, 6.3% – nephritis, 33.6% – various rheumatic diseases (16.8% – juvenile idiopathic arthritis), in remaining 17.3% cases the information about initial diagnosis was missing. The median age at the onset was 13.7 y (10.8; 15.05); the median disease duration at the time of cSLE verification was 6 months.²; 14 In 33.4% pts cSLE was verified after 1 year disease duration, in 15.3% – after 3 years. The most common feature was arthritis – in 71.4%. Fever observed in 68.5% pts at the onset, significant weight loss – in 29.4%. 64% pts had acute cutaneous lupus at the onset, 42.4% – chronic cutaneous lupus, 17.7% – oral and nasal ulcers, 22.2% – nonscarring alopecia, 31% – serositis, 56.6% – renal involvement, 21.2% – neuropsychiatric disorder. The Coombs' positive hemolytic anaemia was found in 15.8% pts, leucopenia/lymphopenia – in 52.2%, thrombocytopenia – in 23.6%. ANA were detected in 100% pts, anti-dsDNA – in 83.3%, anti-Sm – in 29.2%, antiphospholipid antibodies – in 7.3%, hypocomplementemia – in 49.0%, positive direct Coombs test out of hemolytic anaemia – in 13.5%. Macrophage activation syndrome at the onset was documented in 3.4% pts. Median disease activity by SLEDAI at the time of cSLE verification was 13.7 scores,^{8,20} maximum – 42.

Conclusions: cSLE presentation with non-specific general and constitutional manifestations in the majority of cases misled to erroneous interpretation of the condition as infectious or allergic disease in 1/3 of all cases. A monosymptomatic manifestation at the onset, such as arthritis, skin lesion or hematologic disorders, can lead to late diagnosis and very high activity at the moment of start therapy. Specific features of cSLE must be suspected in all cases of arthritis with skin lesions and/or any haematological manifestations, even non-specific.

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SAT0438 INCREASED RISK OF DEPRESSION IN PATIENTS WITH CUTANEOUS LUPUS ERYTHEMATOSUS AND SYSTEMIC LUPUS ERYTHEMATOSUS: A DANISH NATIONWIDE COHORT STUDY

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Background: Quality of life is considerably impaired in patients with systemic lupus erythematosus (SLE) as well as in patients with cutaneous lupus erythematosus (CLE). In patients with SLE, prevalence estimates of depression ranges considerably¹, while the prevalence of depression in CLE remains severely understudied. Data on the actual risk of depression in adults after being diagnosed with CLE or SLE remain scarce.

Objectives: To examine whether patients with SLE or CLE have increased risk of depression.

Methods: In this nationwide observational cohort study, we included patients ≥18 years with a first-time diagnosis of SLE or CLE between 2000–2015 identified in the Danish National Patient Register matched with people from the general population in Denmark in a 1:10 ratio. After linkage to various national Danish health registers analyses of risk for depression and antidepressant use were performed in Cox regression models adjusted for age, sex, socio-economic status, smoking, alcohol abuse, prior depression, and prior antidepressant use.

Results: A total of 3489 patients with lupus erythematosus and 34 890 people from the general population were included. The adjusted hazard ratios (HRs) of depression were 1.87 (95% CI, 1.37–2.55) and 2.15 (95% CI, 1.66–2.77) for patients with CLE and SLE, respectively, compared to the general population. The adjusted HRs of antidepressant use were 1.36 (95% CI 1.22–1.51) and 1.76 (95% CI 1.62–1.91) for patients with CLE and SLE, respectively. The risk of depression was more pronounced in patients diagnosed <50 years of age; adjusted HR=2.88 (95% CI, 1.77–4.69) for CLE and HR=2.33 (95% CI, 1.56–3.49) for SLE. Also a high risk of depression was observed for men with CLE (HR 2.59, 95% CI, 1.24–5.42) and SLE (HR 2.23, 95% CI, 1.11–4.48). Neither CLE or SLE were associated with increased risk of death from suicide.

Abstract SAT0438 – Table 1. Crude and adjusted hazard ratios for depression and antidepressant use in patients with lupus erythematosus compared with the general population

	Crude HR	(95% CI)	P-value	Adjusted HR*	(95% CI)	P-value
Depression						
CLE	2.34	(1.71–3.18)	<0.0001	1.87	(1.37–2.55)	0.0001
SLE	2.33	(1.81–3.01)	<0.0001	2.15	(1.66–2.77)	<0.0001
Antidepressant use						
CLE	1.61	(1.45–1.79)	<0.0001	1.36	(1.22–1.51)	<0.0001
SLE	1.94	(1.78–2.10)	<0.0001	1.76	(1.62–1.91)	<0.0001

* Adjusted for age, sex, smoking, alcohol abuse, socio-economic status, prior depression, and prior antidepressant use.

CI, confidence interval; CLE, cutaneous lupus erythematosus; HR, Hazard Ratio; SLE, systemic lupus erythematosus.

Conclusions: The risk of depression was significantly increased in patients with SLE or CLE. We recommend that rheumatologists and dermatologists are aware of the increased risk of depression in patients with SLE or CLE.

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SAT0439 DIFFERENTIAL LEVELS OF NOVEL AND CLASSIC ANTIPHOSPHOLIPID ANTIBODIES AMONG PATIENTS WITH PRIMARY ANTIPHOSPHOLIPID SYNDROME AND SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: High levels of antiphospholipid antibodies (aPL) are associated predominantly with a higher risk of thrombosis, however, information about differential levels according underlying diagnosis is less well known.

Objectives: Our aim was to compared serum levels of 2 novel aPL (anti-phosphatidylserine/prothrombin (PS/PT) antibodies and anti domain 1 against β2 glycoprotein I (anti-D1 B2GP1)) and "classic" (anticardiolipin, aCL and anti B2GP1 antibodies) among patients with primary APS, SLE with and without thrombosis

Methods: In this cross-sectional study, Anti-D1 B2GP1 antibodies were tested using a chemiluminescent immunoassay (QUANTA Flash, Inova Diagnostics). In