its determination usually requires some days. Leukocyte count, CRP and ESR cannot discriminate SLE from infectious processes. Calprotectin could be a good biomarker to assess lupus activity since it is more specific than CRP and ESR and faster to analyse than anti(ds)DNA.
Objectives: Our aim is to determine serum calprotectin levels in patients with SLE, and its correlation with analytical and clinical manifestations, especially with disease activity.
Methods: A total of 148 patients were included. All patients included fulfilled the SLE criteria (SLICC 2012). A quantitative ELISA analysis was performed to assess levels of serum calprotectin (CALPRO AS, Norway). Other biomarkers of lupus disease activity were also assessed (levels of anti(ds)DNA, hypocomplementemia, ESR and CRP). Clinical variables and activity/damage index (SLEDAI/SLICC) were also evaluated. The study was approved by the Clinical Research Ethics Committee of the hospital and all patients signed an informed consent. The results were compared with a healthy control group of similar age and sex (n=20).
Results: 134 patients (92%) were women with a mean age of 46±12 years and an average SLE evolution of 12±7 years. Mean SLEDAI was 2±2 (105 inactive [<3], 43 mild [4-12], 0 severe [>13]). Mean SLICC was 0.31±0.70. No significant differences were observed in serum calprotectin levels between patients with SLE and healthy controls (2.93±2.35 vs 2.17 ±1.49 µg/mL, p=0.160). Calprotectin was positively correlated with CRP (r=0.447, p=<0.001) and leukocyte count (r=0.462, p=<0.001). Additionally, patients with higher anti(ds)DNA levels (>100UI/mL) had higher calprotectin compared to patients with lower anti(ds)DNA (3.20±2.63 vs 2.42±1.57 µg/mL; p=0.027), however this pattern was not observed with hypocomplementemia. Contrary to what we expected, we did not observe significant differences on calprotectin levels depending on SLEDAI index classification (cutoff at 4 and 12). Moreover, no differences were observed on calprotectin levels between those patients with/without clinical manifestations such as serositis, arthritis or glomerulonephritis. Patients with antiphospholipid antibodies had higher calprotectin levels (3.75±2.04 vs 2.77±2.38 µg/mL;p=0.045).
Conclusion: Serum calprotectin levels were positively correlated with CRP levels and leukocyte count. Patients with higher anti(ds)DNA levels had higher calprotectin levels, however we did not observe significant differences depending on SLEDAI index or the presence of arthritis, serositis neither glomerulonephritis. Even that calprotectin determination is faster than anti(ds)DNA levels and could be helpful in assessing inflammatory activity. There is an interesting relation between antiphospholipid antibodies and calprotectin. This study should be continued in a larger sample of active SLE patients to assess its utility in clinical practice as a discriminating biomarker for flares and even infection
Disclosure of Interests: None declared
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AB0498 GYNECOLOGICAL SYMPTOMS AND SEXUALITY IN SJOGREN'S SYNDROME

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Background: Patients with Sjogren's syndrome (SS) have symptoms such as vaginal dryness and dyspareunia.
Objectives: In this study we aimed to present of primary SS (pSS) and secondary SS (sSS) patient's gynecological symptoms and effects of the disease on sexuality.
Methods: 60 pSS, 42 sSS, 52 healthy controls (HC) were interviewed. It was asked questions about sexuality, SF-36, HAD scale, pSS and sSS patients were also administered HAQ and Modified Hiil questionnaire[1].
Results: The mean age of the patients was 52 ± 11 years in the pSS, 54 ± 11years in the sSS and 46 ± 9 years in the HC. Although there was no significant difference in term of age in pSS and sSS groups, mean age was lower in HC group. There were no significant differences in SF-36 mental index score, SF-36 physical index score, HAD-Anxiety score and HAD-Depression score among 3 groups. 62% of patients in the pSS, 79% in the sSS and 33% in HC were in menopause. Vaginal and vulvar dryness were significantly higher in SS, especially in the pSS than HC. The proportion of sexually active women was lower in sSS group. Spontaneous genital pain and dyspareunia were found to be high in pSS and it was statistically significant. Decreased sexual desire was significantly higher in SS groups (Table1).
HAQ score was significantly lower in pSS group than sSS group. Dyspareunia, dysuria, vaginal dryness and fatigue were significantly higher in pSS (Table2). There was no significant difference between two groups in terms of the effect of vulvar, vaginal dryness, dyspareunia, decreased sexual desire, myalgia, arthralgia and fatigue on sexuality
In the pSS group, it was seen that disease had a negative effect on sexuality. There were no significant differences between the two groups when asked whether they enjoyed sexuality and the sexual problems create problems between their partners. In both groups, 97% of patients stated that they had not been questioned about their sexuality before. 80% of pSS patients and 88% of sSS patients stated that they did not talk about sexuality problems.
Conclusion: Gynecological and sexual problems are seen in SS patients. Menopause also contributes to this situation. Patients should be informed about these problems and directed to gynecologists when necessary, and enough time should be reserved as we do.

Table 1. Groups Data

N(%)	Primary SS (60)	Secondary SS (42)	Healthy Control (52)	p
Age	52±11	54±11	46±9	*0.001*
Menopausal state	37(62)	33(79)	17(32)	*0.000*
Menopause Age	47±5	48±4	45±4	0.722
Hormone replacement therapy	8(13)	3(7)	3(6)	0.334
Sexual activity	46(77)	25(60)	43(83)	*0.033*
Vaginal dryness	38(63)	18(43)	11(21)	*0.000*
Vulvar dryness	26(43)	17(41)	8(15)	*0.004*
Dyspareunia	34(57)	14(33)	16(31)	*0.010*
Spontaneous genital pain	17(28)	5(12)	5(10)	*0.019*
Reduced sexual desire	44(73)	34(81)	26(50)	*0.003*
SF-36 mental index	43.5±10	45±12	47±9	0.237
SF-36 physical index	43±11	43±10	45±9	0.537
HAD- Anxiety	7±4	7±5	7±4	0.879
HAD- Depression	5±4	5±5	5±4	0.824

Table 2. Brief Survey Results of Primary and Secondary Sjögren Patients

N(%)	Primary SS	Secondary SS	p
Vaginal dryness	38(63)	18(43)	*0.041*
Vulvar dryness	26(43)	17(41)	0.774
Dyspareunia	34(57)	14(33)	*0.020*
Spontaneous genital pain	17(28)	5(12)	*0.047*
Dysuria	13(22)	2(4.8)	*0.018*
Dysuria	44(73)	34(81)	0.372
At least one gynecological symptom	49(82)	34(81)	0.927
Arthralgia	33(55)	23(55)	0.981
Myalgia	38(63)	23(55)	0.385
Fatigue	48(80)	26(62)	*0.044*
At least 1 muscle-skeletal symptom	47(78)	27(64)	0.118
HAQ	0.19±0.33	0.45±0.82	*0.013*

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AB0499 FINGERSTICK BLOOD TRANSCRIPTOMICS: A PATIENT-CENTRIC APPROACH TO ENABLE PRECISION MEDICINE?

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Background: Venous blood collection using PAXgene RNA blood stabilization (PAX) is a routine method to obtain blood for gene expression (GE) analysis requiring phlebotomy and cold chain transport. DxCollect® is a fingerstick blood micro collection device (MCD) that circumvents phlebotomy and is reported to stabilize blood RNA for up to 14 days at ambient temperature potentially enabling collected blood to be shipped by mail.
Objectives: We evaluated DxCollect® as an alternative to the conventional method to potentially improve convenience and cost effectiveness of blood transcriptomic analysis and allow high frequency transcriptomic assessment.
Methods: Heparinized blood samples were treated with interferon-α for 3h *in vitro* and transferred to 3 PAX and 3 MCD tubes. One PAX and

MCD for each treatment was stored at ambient temperature for 7 and 14 days or frozen. RNA from PAX tubes and MCD was extracted and GE performed by qPCR and DxDirect® platform respectively. Interferon-inducible gene signature was compared between the two platforms. In addition, RNASeq was performed on immediately frozen PAX and MCD to examine suitability for broad transcriptomics.

Results: IFN-GE was comparable between PAX and MCD samples when frozen directly after collection. Stability of MCD IFN-GE was largely unchanged at 7 and 14 days of ambient storage while PAX IFN-GE decreased over storage period. Comprehensive QC of RNA-Seq showed no significant differences in the two platforms in terms of RNA quality and integrity. Transcriptional diversity and levels were comparable with an overall correlation between PAX and MCD > 95%.

Conclusion: MCD showed greater stability at ambient temperature and required minimal blood collection volumes. Downstream GE data from MCD finger stick blood collected was comparable to current PAX method. MCD in clinical trials may enable better resolution of temporal transcriptional changes and the ability to capture unpredictable events such as disease flare through ad hoc home collections allowing high frequency transcriptomic assessment. MCD coupled with a gene expression platform could become an opportunity for diagnostic development in the growing field of precision medicine.

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None

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AB0500 FLARES AND DISEASE-RELATED DAMAGE IN LATE-ONSET SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Late-onset systemic lupus erythematosus (SLE) and its disease-related outcomes have not been previously examined in a multi-ethnic Southeast Asian cohort.

Objectives: To compare the following outcomes between patients with adult-onset versus late-onset SLE a) Disease manifestations at baseline b) Frequency of flares, defined by the SELENA Flare Index (SFI) c) Baseline damage and damage accrual, defined by the SLICC/ACR Damage Index (SDI)

Methods: We prospectively enrolled patients ≥ 21 years old with SLE who fulfilled either the 1997 ACR Criteria or the 2012 SLICC Classification Criteria and followed each patient at three-monthly intervals for up to 5 years. Baseline demographics, disease manifestations, antibody profile were captured. At each visit, disease activity was measured using SLEDAI-2k. SDI was measured annually. We defined late-onset SLE as onset of symptoms at ≥50 years of age and adult-onset SLE as onset of symptoms at ≥18 but <50 years of age. We excluded patients with symptom onset before 18 years of age.

We compared the baseline demographic, disease manifestations and antibody profile between the adult-onset and late-onset patients. We analysed continuous variables using the Mann-Whitney U test and categorical variables using the Chi-square test. Bonferroni correction for multiple comparisons was done. We then compared the time to first flare between the two groups using the logrank test. Baseline SDI scores and the proportion of patients who have increased SDI ≥1 over follow-up were compared using Chi-square tests.

Results: Of the 214 patients recruited, 154 (72.0%) were Chinese and 197 (92.1%) were females. One-hundred and ninety-three (90.2%) were on anti-malarial therapy and 141 (66.2%) were on immunosuppressive agents other than corticosteroids. The median (SD) age of recruitment of the 184 adult-onset SLE patients was 30.0 (22.5-37.5) years while the median (SD) age of recruitment of the 30 late-onset SLE patients was 53.0 (50.0-56.5) years. The median (IQR) disease duration was 8.12 (2.75-13.5) years among the adult-onset patients and 5.73 (1.52-9.95) years among the late-onset patients. Arthritis was the only disease manifestation that was different between the two groups (66.8% in the adult-onset group versus 36.7% in the late-onset group, p=0.002). There were no significant differences in the demographics and antibody profile between the two groups.

The median (IQR) baseline Systemic Lupus Erythematosus Disease Activity Index-2k (SLEDAI-2k) was 3 (1-5) and 2 (0-4) in the adult-onset and late-onset patients respectively (p=0.086). The median (IQR) number of all flares per year was 0.41 (0-0.91) among adult-onset patients and 0.25 (0-0.55) among late-onset patients (p=0.206). There was no significant difference in the time to first flare or time to first severe flare between the two groups [mean (SD) time to any flare 2.51 (0.15) years in the adult-onset group versus 2.77 (0.34) years in the late-onset group, p=0.521; mean (SD) time to severe flare 3.90 (0.14) years among adult-onset patients versus 4.27 (0.28) years among late-onset patients, p=0.336].

The median (IQR) SDI at baseline was 0 (0-1) in adult-onset patients and 1 (1-2) in late-onset patients (p=0.049). There was no significant difference in the proportion of patients who accrued further damage during follow-up (7.9% of adult-onset patients versus 14.3% of late-onset patients, p=0.268).

Conclusion: Although Southeast Asian patients with late-onset SLE have higher disease-related damage at recruitment, baseline disease activity and frequency of flares were similar to patients with SLE of adult-onset.

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AB0501 CLINICAL ANALYSIS OF BONE MINERAL DENSITY IN PATIENTS WITH NEW-ONSET SYSTEMIC LUPUS ERYTHEMATOUS

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Background: Osteoporosis in patients with systemic lupus erythematosus (SLE) is always thought to be GIOP (induced by glucocorticoid). Yet in our practice, there were some patients who developed osteoporosis at the onset of SLE, before the use of glucocorticoid and immunosuppressants. The clinical feature of these patients were not known by us clearly.

Objectives: This study aimed to investigate the BMD (bone marrow density) status and clinical characteristics of treatment-naive patients with newly diagnosed SLE.

Methods: Patients admitted to Peking University Third Hospital from 2009-2016, who were newly diagnosed as SLE and had no previous medical history that would had affected their BMD, were enrolled in this study. Demographic and clinical data were recorded. BMD of the lumbar vertebrae and femoral necks were measured with dual-energy X-ray absorptiometry, and patients were stratified as normal and abnormal BMD groups (including ostepenia and osteoporosis).

Results: Eighty-nine SLE patients with a mean age of 28.7 ± 8.9 years were included in the study (Table1).

Abstract AB0501 Table 1. Demographics of newly diagnosed SLE patients

Variables	SLE patients (n=89)
Age (year)	28.7±8.9
Menarche age (year)	13.1±1.3
BMI (Kg/m^2)	21.7±3.8
Male	7%
Smoking history	3%
Fracture history	0%
SLEDAI	10.0±5.0

Approximately 36% of these patients had normal BMD, 49% had osteopenia, and 15% had osteoporosis. The SLE Disease Activity Index (SLEDAI) in the abnormal BMD group was lower than that in the normal BMD group (9.4 ± 4.5 vs 12.1 ± 5.8, P= 0.028). The body mass index (BMI) was significantly lower in the abnormal than normal BMD group (20.5±3.5 kg/m^2 vs 24.2±3.2 kg/m^2, P = 0.00). The total cholestenone (TC) and low density lipoprotein (LDL) were lower in the abnormal than normal BMD group (4.3±1.7 mmol/L vs 2.4±1.2 mmol/L, P =0.04; 4.9±1.3 mmol/L vs 2.9±0.9 mmol/L, P = 0.033). The multisystem damage and