p<0.001). The SLEDAI value rose with increasing values of all the parameters except C3 complement. Using the standard multiple regression analysis, the impact of anti-dsDNA, anti-nukleosome, anti-C1q antibodies, complement C3, and serum and urinary MCP1 na SLEDAI was evaluated. The studied model was able to explain 26.60% of disease activity index variance (corrected $r^2$=0.246, F=4.755, p<0.001). As the statistically significant risk factors, serum MCP1 (Beta=0.257, p=0.040) and urinary MCP1 (Beta=0.326, p=0.008) could be singled out. Serum MCP1 increased SLEDAI values and explains their variance with 4.80%. The impact of urinary MCP1 was stronger. SLEDAI values increased with elevated urinary MCP1. This parameter was able to explain 8.10% of SLEDAI variance.

**Conclusions:** The study showed that anti-dsDNA, anti-nukleosome and anti-C1q antibodies were associated with SLE disease activity, but the association was strongest with serum and urinary MCP1.

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## FRI0390 IMPAIRED OVARIAN RESERVE IN PATIENTS AFFECTED BY SYSTEMIC LUPUS ERYTHEMATOSUS: A CASE-CONTROL STUDY

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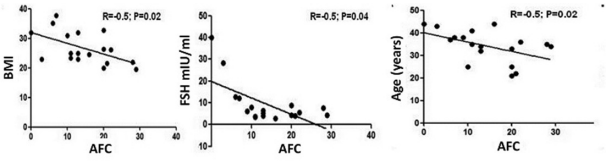
**Background:** Systemic lupus erythematosus (SLE) is an autoimmune disease showing a strong predilection for reproductive age women (female/male ratio 9:1). This is in part due to the effects exerted by sexual hormones on immune system. The term ovarian reserve has been used traditionally to describe the number and quality of oocytes in women. This is assessed by detection of FSH, AMH and Estradiol (E2) and by ultrasonographic (US) evaluation of antral follicolar bilateral count (AFC), as recommended by the Society of Reprodutive Medicine. The evaluation of AFC should be conducted in the early follicular phase of the menstrual cycle. An AFC lower than 3–4 follicles is highly specific (73%–97%) of poor ovarian function. Data from the literature about ovarian reserve in SLE showed contrasting results.
**Objectives:** We aimed at assessing ovarian reserve in a SLE cohort, by US determination of AFC and by analysing serum levels of AMH, FSH, E2.
**Methods:** In this case control study, we enrolled consecutive SLE patients in reproductive age (<45 years), fulfilled the 1997 ACR revised criteria, not treated by gonadotoxic chemotherapy agents. Moreover, we enrolled age-matched healthy women (HS). Clinical and laboratory data were collected in a standardised, computerised and electronically filled form, including demographics, past medical history with date of diagnosis, autoantibody profile, comorbidities, previous and concomitant treatments. We assessed the disease activity and chronic damage by using SLEDAI-2K and SDI, respectively. In order to assess AFC, patients and HS underwent to transvaginal US evaluation by a single operator (Samsung Elite USS-WS8EL4U/WR) between the 2nd and 7th day of the menstrual cycle. At the same day of the US assessment, we obtained sample of peripheral venous blood from patients and HS to evaluate FSH, AMH and E2 dosages (ELISA kit CLOUD-CLONE Corp., My Biosource, USA).
**Results:** Nineteen SLE patients (median age 35 years, IQR 6.0; mean disease duration ±SD 12.2±7.7 months) and 8 HS were evaluated. A mean ±SD SLEDAI-2K of 2.5±1.5 was registered; 3 patients had a chronic damage (SDI=1). FSH values were significantly higher in SLE patients compared with HS ([SLE: median (IQR) 35;[6] HS: median (IQR) 3 (1.5); p=0.01]. Concerning the AFC, we found significantly lower values in SLE patients than in HS [SLE: median (IQR) 13;[11] HS: median (IQR) 22.5 (10.5); p=0.03]. The Spearman analysis demonstrated a negative correlation between AFC and BMI (r=−0.5, p=0.02), FSH (r=−0.5, p=0.04) and age (r=−0.5, p=0.02) (figure 1).




**AFC**: antral follicolar bilateral count; **BMI**: body mass index; **FSH**: follicle-stimulating hormone

**Abstract FRI0390 – Figure 1**

**AFC:** antral follicolar bilateral count; **BMI:** body mass index; **FSH:** follicle-stimulating hormone
**Conclusions:** The preservation of fertility is a crucial point in SLE patients and the evaluation of ovarian reserve should be included in the patients' management in order to assess ovarian function. Moving from these premises, in the present study we demonstrated an impaired ovarian reserve in SLE patients in terms of AFC values and a negative correlation with hormonal and some demographic features.
**Disclosure of Interest:** None declared
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## FRI0391 THE RELATIONSHIP BETWEEN OESTROGEN RECEPTORS AND HYPERURICEMIA IN YOUNG FEMALE SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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**Background:** We have found that the incidence of hyperuricemia of young female systemic lupus erythematosus (SLE) patients was higher than that of healthy young women[1]. Why the high level of oestrogen didn't show protection in uric acid (UA) level of fertile female SLE patients? There few few reports yet.
**Objectives:** To investigate the relationship between UA level and the levels of oestrogen, oestrogen receptors, antibodies to oestrogen receptors.
**Methods:** This was a cross-sectional study of 62 fertile female SLE patients that were divided into two groups including a high UA group (n=27) and a normal UA group (n=35). Serum UA levels, kidney index, SLE disease indicators and levels of oestrogen, oestrogen receptors, antibodies to oestrogen receptors were determined. Multiple linear regression analysis was applied to analyse the associations of UA levels with clinical features and levels of oestrogen, oestrogen receptors and antibodies to oestrogen receptors.
**Results:** 1. The mean ages of the two groups were (28.62±7.89) years and (28.82±8.28) years respectively, with on significantly different (t=0.096, p=0.924). There was no SLE patients manifested renal failure (CRE level higher than 120 μmol/l). All the SLE patients were at the onset of disease.
2. The mean UA levels of the high UA group and the normal UA group were (531.74±134.05) μmol/L and (238.86±61.32) μmol/L respectively, with significant difference (t=−11.48, p<0.001).
3. In the high UA group, the levels of CRE, LDL, cystatin, urine protein and were dramatically higher than those were found in the normal UA group (t=−3.617,–3.319, -2.782,–2.979, and p=0.001, 0.002, 0.007, 0.004, respectively), and oestrogen receptor β level were significantly lower than that of the normal group (t=2.138, p=0.037). The positive rate of urine blood of the high UA group were significantly higher than that of the normal UA subgroup ($\chi$2=6.213, p=0.012).
4. Multiple linear regression analysis revealed there were significant relationships between UA level and CRE, oestrogen receptor β, and urine protein, urine blood.