

**Results** In our study we have observed a greater incidence of preterm birth (33%) and caesarian section (68%), compared to reference healthy population of the same hospital Department. We also observed, in association with maternal therapy taken during pregnancy, a significant difference of the incidence of preterm birth ( $p=0,0005$ ) and a weakly significant difference of the incidence of low neonatal weight ( $p=0,0596$ ).

We haven't notice any significant difference, in association with antibody positivity, of the incidence of low birth weight and fetal growth restriction and not even in the incidence of neonatal complications.

Regarding the long-term paediatric follow-up, we have notice a greater incidence of psychomotor development alterations in association with ENA antibody positivity (28% vs 0%), with a statistically significant difference ( $p=0.0155$ ).

**Conclusions** Data from the retrospective analysis, in agreement with literature, confirm a greater incidence of caesarian section (most of cases programmed), preterm birth and low birth weight in this category of newborns.

For the first time it was considered the association between neonatal and paediatric outcomes and the maternal therapy during pregnancy: we have notice a significant greater incidence of preterm birth in newborns from mother who have taken therapy during pregnancy.

Regarding the long-term paediatric follow-up, until school age, in agreement with the few data in the literature, it was observed a greater incidence of psychomotor development alterations in children born from mother with antibody positivity (aPL ed ENA).

Our data notice a poor adherence to practical recommendations of the clinical management and the follow-up of these children present in the literature.

We have set up a national survey in order to verify current knowledge and to sensitise Paediatricians and Neonatologists regarding this category of children, that need a specific clinical management and follow-up.

Since limits of a retrospective study and the relative small population size, we started a case-control prospective study with a wider population size, currently in the recruitment phase, in order to validate data observed in the retrospective analysis and to verify the current adhesion to recommendations of the follow-up.

We hope that a greater knowledge of the topic, together with the establishment of common clinical practices, can bring to an improvement of obstetric, neonatal and long-term paediatric outcomes in children born from mother with systemic autoimmune disease.

PS4:84

#### OBSTETRICAL COMPLICATIONS AND PREGNANCIES IN WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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**Background** Systemic lupus erythematosus (SLE) is a chronic auto-immune disease, which mainly occurs in women during childbearing age. It is associated with several fetal and maternal complications.

**Objective** To describe obstetrical complications and evaluate pregnancy and fecundity rates in women with SLE.

**Methods** It is a retrospective study including 227 women with SLE. Only 143 women, who are sexually active, were studied.

**Results** The mean age at disease onset was  $36.61\pm 13.41$  years. The mean age at SLE diagnosis was  $38.47\pm 13.43$  years. The most frequent manifestations of the disease were lupus nephritis and neurological involvements, seen in respectively 39.7% and 14.7% of patients. Antinuclear antibodies were positive in 96.5% of cases and anti-dsDNA were positive in 96.3% of cases. Anti-SSA, anti-SSB, anti-cardiolipin and anti-B2GPI antibodies were found in respectively 68, 37.3, 46% and 27.3% of patients. Corticosteroids were given in 90.4% of patients and 58% of them had immunosuppressive therapy: Cyclophosphamide ( $n=42$ ), Azathioprine ( $n=30$ ), Methotrexate ( $n=9$ ) and Mofetil Mycophenolate ( $n=2$ ).

Obstetrical complications were: spontaneous abortion before the 10TH week of gestation (22.8%), unexplained fetus death after the 10TH week of gestation (12.2%) and intrauterine death (10%).

Among the 143 women, 130 had at least one pregnancy (average= $3.59\pm 2.62$  pregnancies). Most pregnancies resulted in live births; 121 women had at least one child with an average of  $2.55\pm 2$  children/woman. Pregnancies occurred after SLE diagnosis in 40 women (among 69 who wants to have children) with a mean of  $1.75\pm 1.05$  pregnancies. Twenty nine women had at least one child with a mean of  $1.15\pm 0.9$  children. In addition to their usual treatment, other drugs were added during pregnancies: aspirine ( $n=7$ ), low molecular weight heparin ( $n=7$ ) and betamethasone in one case. One patient was treated with aspirine and low molecular weight heparin. Obstetrical events caused lupus flare in 11 cases (pregnancy in 7 cases, delivery in 2 cases, intrauterine death and spontaneous abortion each in one case).

**Conclusion** Comparing to general population in Tunisia (2 children/woman), fecundity is reduced in women after SLE diagnosis. Complications are related to disease activity, anti-phospholipid antibodies and hypertension.

PS4:85

#### FERTILITY AND PREGNANCY IN WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS: A COMPARISON WITH OTHER RHEUMATIC DISEASES

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**Purpose** Rheumatological disorders, usually affect women during reproductive ages and have an impact on their reproductive wishes.

We aim to assess the differences between SLE and other diseases for fertility and pregnancy evolution in a group of patients followed in a specific consult for planning and management of pregnancy.

**Methods** Retrospective study in a cohort of patients with rheumatological disorders who want to get pregnant. Fertility exam to the couple was done. Data about sterility (never conception) and infertility (miscarriages), assisted reproduction, preterm delivery and also adverse pregnancy outcomes (disease flares, preeclampsia) were compared in 3 groups: SLE, connective tissue disease non-SLE (Sjögren's Syndrome, MCTD) and

Abstract PS4:85 Table 1

	SLE	CTD non-SLE	Chronic arthritis
<b>Sterility</b>	3 (12%)	0	2 (7.6%)
<b>Miscarriages</b>	8 (32%)	0	7 (26%)
<b>Assisted reproduction</b>	3 IVF (12%) 1 insemination (4%)	1 (11%)	4 IVF (15%) 2 insemination (7.6%)
<b>Preterm delivery</b>	2 (8%)	0	0
<b>Flares during pregnancy</b>	0	0	11 (42%)
<b>Preeclampsia</b>	2 (8%)	0	0

IVF: in vitro fecundation

chronic arthritis (CA) including rheumatoid arthritis (RA), spondyloarthritis (SPA) and psoriatic arthritis (PsA).

**Results** 60 women (25 SLE, 9 connective tissue diseases non-SLE, 26 CA) were evaluated for pregnancy planning. All of them were in remission and were taking safe pharmacological treatment for the pregnancy. Fifty percent presented advanced maternal age (>35 years old) at the time of evaluation (8 SLE, 2 CTD no SLE and 15 CA).

Until now, 48 patients have finished their pregnancy (18 SLE, 8 CTD non-SLE and 22 CA); in the others pregnancy is still on going.

Data collected is showed in table.

Sterility and fertility were similar in both, SLE and CA, and comparable with healthy women of the same age. Preeclampsia and an increased risk of preterm delivery were more frequent in the outcome of patients with SLE ( $p>0.05$ ), however patients with CA showed basically joint inflammation ( $p>0.05$ ). Antiphospholipid antibodies were not associated with higher rates of either fetal or maternal complications in this group of patient, probably because treatment with aspirin and LMWH was started at the beginning of conception. All neonates whose mothers were anti Ro positive (16 women) had positive anti Ro serum determination, however only four of them presented with atrioventricular block (AVB).

Conclusion in our group of patients, SLE showed comparable results of fertility with healthy women of the same age, probably because disease was in completed remission and they never use cyclophosphamide. Pregnancy planning help ensure better outcomes in these patients

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#### OBSTETRIC AND NEONATAL OUTCOMES IN SYSTEMIC LUPUS ERYTHEMATOSUS: A POPULATION-BASED REGISTER STUDY

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**Introduction** In women with systemic lupus erythematosus (SLE) pregnancies may be negatively affected by disease activity and medical treatment. Increased frequencies of adverse outcome including preterm delivery and perinatal morbidity/mortality have been reported. However, different frequencies are reported from different studies.

**Aim and hypothesis** Utilising national health registers we want to investigate maternal and fetal outcomes in Danish pregnant SLE patients compared to outcomes in the background population.

**Methods** The outcome of pregnancies in Danish SLE patients in 1997–2016 is studied utilising healthcare-registries (the Danish National Patient Registry (NPR) and the Medical Birth Register (MBR)) and trends are described.

**Study population and material:** All females with a diagnosis of SLE in the study period are identified from the NPR (ICD-8 and ICD-10 diagnoses of SLE). The outcome of all pregnancies (routinely registered in NPR and MBR) is compared to the outcome in an age-matched cohort of pregnant women without SLE (each SLE patient is matched with 20 females from the background population). Data about infants are retrieved from the MBR

**Statistics:** Using logistic regression we will examine if risk of adverse maternal and fetal outcome is higher in women with SLE than in women without SLE, by calculating crude and adjusted odds ratios

**Results** Frequencies of adverse maternal outcomes including preeclampsia, preterm delivery and Caesarean section, and adverse infant outcome including asphyxia, growth retardation and low Apgar score will be presented. Crude and adjusted odds ratios will be calculated comparing pregnancies in SLE females with pregnancies of non-SLE females.

Data are at present being retrieved from the Danish authorities and subsequent data analysis is expected to be completed December 2017.

Approximately 800 women with SLE are expected to be included in the study.

#### Poster session 5: Innate and adaptive immunity

PS5:87

#### JUVENILE-ONSET SLE IMMUNOPATHOGENESIS COULD BE ASSOCIATED WITH ALTERED IMMUNE CELL PLASMA MEMBRANE LIPIDS AND LIPOPROTEIN METABOLISM

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