90% for gluten) and potent activators of the innate immune system via the toll like receptor 4 (TLR4)-MD2-CD14 complex in cells of the mononuclear phagocyte system (Junker *et al*, J Exp Med 2012), triggering several autoimmune/inflammatory diseases. In contrast, pure gluten that is de-enriched of ATIs shows no stimulatory activity. MRL-Fas(lpr) mice develop progressive and spontaneous glomerular, tubulointerstitial and perivascular kidney disease, arthritis, lymphadenopathy, splenomegaly and circulating autoantibodies in a syndrome that resembles systemic lupus erythematosus (SLE). Here we explored the effect of dietary ATIs on disease severity in MRL-Fas(lpr) mice.

Methods MRL-Fas(lpr) mice were placed either on a gluten-free diet (GFD) or a diet containing 25% gluten (which contains amounts of ATIs equivalent to the human wheat based diet). We measured serum cytokines, proteinuria, haematuria, hemoglobinuria and histological and immunohistochemical markers of myeloid inflammation (F4/80 and CD68) in different affected organs (kidney, spleen and intestine).

Results Mice on a GFD showed lower levels of serum inflammatory cytokines (IL-6, KC and TNF α) that accompanied lower grade proteinuria, haematuria and hemoglobinuria during the study period. CD68, F4/80 and CD4 positive cells were also higher in the animals that consumed ATIs.

Conclusions Dietary wheat ATIs enhances SLE disease progression, in contrast, a GFD (which is ATI-free) had a protective effect on the development of SLE in MRL-Fas(lpr) mice, confirming the role of ATIs as important nutritional co-stimulant of inflammation in autoimmune diseases.

more patients with damage in the APO(+) and their mean damage score was significantly higher (1.8 ± 2.1 vs 0.8 ± 1.3 , $p < 0.05$). The frequency of patients with NP, renal, cardiovascular and musculoskeletal damage was significantly higher in the APO(+) (figure 1).

Abstract P69 Figure 1 Distribution of damage according to organs/systems among APO (+) and APO (-) groups

P69 RISK FACTORS FOR ADVERSE PREGNANCY OUTCOME IN PATIENTS WITH SLE

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Objective Lupus pregnancies are considered as high risk because of both disease activation and pregnancy complications. In this study, we determined the risk factors associated with adverse pregnancy outcomes (APO) in pregnant patients with lupus followed up by both Rheumatology and Obstetrics and Gynaecology (O&G) departments at our university.

Method 136 lupus patients with 168 pregnancies were analyzed. The course of pregnancies and fetal/neonatal prognosis were identified. Unexplained fetal death ≥ 12 gestational weeks, neonatal death, preeclampsia, eclampsia, preterm birth due to HELLP and/or small for gestational age (SGA) infant were defined as APO. Clinical and laboratory findings, disease activity (SLEDAI-2K) and damage (SLICC/ACR) and conventional risk factors were compared between APO (+) and APO (-) groups.

Results 71% of pregnancies resulted in live births and APOs occurred in 34% (table 1). Renal and neuropsychiatric (NP) involvement, thrombocytopenia, antiphospholipid syndrome (APS), lupus anticoagulant and anti-cardiolipin IgM positivity rates were significantly higher in APO (+) (table 2). Mean SLEDAI-2K during pregnancy and postpartum were higher in APO (+) (2.2 ± 3.6 vs 1.2 ± 2.04 , $p < 0.05$; 4.9 ± 6.03 vs 2.7 ± 5.01 , $p = 0.02$, respectively). There were significantly

Abstract P69 Table 1 Pregnancy (n=168), fetal and neonatal outcomes in SLE pregnancy cohort (n=136)

	N (%)
Live birth	119 (70.8)
≥ 22 weeks still born	11 (6.5)
Neonatal Death	1 (0.6)
Maternal death	1 (0.6)
Preterm birth	37 (22)
SGA birth	25 (14.9)
Preeclampsia	14 (8.3)
- <32 weeks	6 (3.6)
- >32 weeks	8 (4.7)
HELLP	5 (3)
Intrauterine growth restriction (IUGR)	23 (13.7)
- <32 weeks	13 (7.7)
- >32 weeks	10 (6)
Pathologic uterine artery Doppler finding	21 (12.5)
Pathologic umbilical artery Doppler finding	9 (5.4)
Newborn 1st minute APGAR score <7	20 (11.9)
Newborn 5th minute APGAR score <7	14 (8.3)
Fetal cardiac disease	13 (7.7)
-Atrioventricular block	7 (4.1)
-Sinus bradycardia	1 (0.6)
-VSD	2 (1.2)
-VSD+ASD	1 (0.6)
-Aberrant right subclavian artery anomaly (ARSA)	1 (0.6)
-Mild hypertrophy of the left ventricle, stenosis in pulmonary artery index	1 (0.6)
Fetal/neonatal congenital anomaly or disease (other than cardiac disease or conduction block)	13 (7.7)

(IUGR: Intrauterine growth restriction, SGA: Small for gestational age)

Abstract P69 Table 2 Demographic data of APO (+) and APO (-) groups, comparison of conventional risk factors, cumulative clinical, serological and laboratory features

	APO (-) (n=111)	APO (+) (n=57)	p
Age	35.1±6.7	34.9±5.9	NS
Age at conception	30.6±5.6	28.9±4.2	NS
Disease duration (months)	141.6±70	166.9±87.9	<0.05
Smoking, n (%)	26 (23.4)	5 (8.8)	<0.05
Chronic hypertension, n (%)	6 (7)	11 (19.6)	<0.05
Gestational diabetes, n (%)	3 (3.5)	6 (10.9)	NS
Photosensitivity, n (%)	86 (77.5)	43 (75.4)	NS
Malar rash, n (%)	66 (59.5)	38 (66.7)	NS
Discoid rash, n (%)	8 (7.2)	1 (1.8)	NS
Oral ulcer, n (%)	11 (9.9)	6 (10.5)	NS
Arthritis, n (%)	77 (59.4)	42 (73.7)	NS
Serositis, n (%)	17 (15.3)	13 (22.8)	NS
Renal, n (%)	39 (35.1)	30 (52.6)	<0.05
Hematologic, n (%)	78 (70.3)	40 (70.2)	NS
Thrombocytopenia, n (%)	37 (33.3)	30 (52.6)	<0.05
AIHA, n (%)	16 (14.4)	14 (24.6)	NS
Neurologic, n (%)	7 (6.3)	9 (15.8)	<0.05
Anti-dsDNA n (%)	63 (56.8)	35 (61.4)	NS
Anti-Ro n (%)	43 (37.7)	21 (36.8)	NS
Anti-cardiolipin IgG, n(%)	28 (25.2)	18 (32.1)	NS
Anti-cardiolipin IgM, n (%)	18 (16.2)	18 (32.1)	<0.05
Lupus anticoagulant, n (%)	26 (23.4)	28 (49.1)	<0.001
Antiphospholipid syndrome, n (%)	28 (25.2)	30 (52.6)	<0.001

(NS=not significant, APO=adverse pregnancy outcome, AIHA=autoimmune hemolytic anemia)

Conclusion Although an important proportion of SLE pregnancies result in live birth, active disease, especially renal and NP involvement, and damage increase the risk of complications. Furthermore, the presence of APS or antiphospholipid antibody positivity are important risk factors for APO. In conclusion, patients, especially with damage, should be pre-counselled to be made aware of the risks. Pregnancy should be allowed after disease activity is controlled and a close monitoring with O&G clinics is essential.

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INCREASED WORK LOSS DURING PREGNANCY IN WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS COMPARED TO MATCHED HEALTHY CONTROLS

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Background Women with Systemic Lupus Erythematosus (SLE) might be more vulnerable to reduce or stop working during pregnancy because of the increased risk of pregnancy complications compared to the general population. Therefore, we

aim to assess differences in work participation during pregnancy and thereafter between pregnant women with SLE and matched controls.

Methods A case-control study on employment was performed in pregnant women with SLE and matched controls. Matching criteria were age, year of delivery, and number of living infants. Employment was defined as having ≥8 hours/week of paid work before conception. Interruption or reduction of work for >1 week during pregnancy, complete cessation of work for >1 week until delivery, and the time in weeks to return to work after maternity leave were assessed.

Results A total of 42 women were included (21 SLE patients, 21 matched controls). Mean SELENA-SLEDAI before pregnancy in SLE patients was 2.6 (SD 2.3). Interruption of work for >1 week and/or completely stop working during pregnancy occurred in more women with SLE compared to matched controls (OR=9.0, 95% CI [1.1–71.0], p=0.04) and the duration of sick leave was longer (p=0.004). After delivery, no difference in return to work after maternity leave was found between women with SLE and controls (OR=1.0, 95% CI [0.25–4.0], p=1.0).

Conclusion Pregnant women with SLE more frequently stopped working compared to matched controls. These findings warrant improved counseling of these women as well as extra attention of healthcare providers, including company doctors.

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SYSTEMIC LUPUS ERYTHEMATOSUS AND PREGNANCY – 10 YEARS' EXPERIENCE FROM A PORTUGUESE TERTIARY CENTER

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Background Systemic Lupus Erythematosus (SLE) is an autoimmune disease that affects women in childbearing age, so its association with pregnancy is not a rare event. With the analysis of our cohort over the past 10 years, we seek to clarify the clinical characteristics, evolution, impact of the treatment and evaluation of the outcomes of those pregnancies in our institution.

Methods Retrospective descriptive study of all SLE pregnancies supervised in the Autoimmune Disorders and Pregnancy Consultation Unit of our center, from January 2009 to October 2019.

Results 120 pregnancies were included in 91 patients with a mean age of 32.0 years. 36.0% were primiparous and 26.8% had history of miscarriage. In 31.2% of cases, SLE was associated with other autoimmune diseases and in 14.1% it was associated with anti-phospholipid antibody syndrome. 11.7% of patients had history of renal involvement. 95% of all pregnant women continued the previous medication during pregnancy.

Hydroxychloroquine was the most commonly used drug (58.3% of cases). 14.2% had clinical or analytical worsening during the course of pregnancy and 11.9% at postpartum and all of those cases were controlled with adjustment of the medication. 17.0% of cases had a preterm delivery, of which