Figure 1. AUC at IL-23 between SA patients 0.705 ($p<0.0001$)

Nevertheless, no correlation was found between serum IL-23 levels and the following parameters: ESR, CRP, BASDAI, ASDAS-CRP, BASFI and BASRI.

Results: The study included 57 men and 15 women. The mean age was 44.84 ± 13.42 years. The mean age at the onset of the disease was 35.97 ± 12.88 years. The disease duration was 8.54 ± 7.7 years.

Seventy-nine per cent of our patients had axial radiographic spondyloarthritis ($n=57$). Peripheral involvement was found in 45.8% ($n=33$). Eighteen patients had both axial and peripheral involvement concomitantly. Psoriasis was found in 36.1% of the cases ($n=26$).

The mean BASDAI and ASDAS-CRP were 3.21 ± 1.64 and 3.05 ± 1.51 , respectively.

The mean was BASFI 3.88 ± 2.69 . The mean was BASRI 5.26 ± 4.14 .

The mean ESR and CRP were 36.74 ± 29.38 mm/hr and 20.45 ± 25.19 mg/dL, respectively.

IL-23 level was significantly higher in patients compared to healthy controls (23.1 ± 2.72 pg/mL and 5.02 ± 0.59 pg/mL, respectively, $p<0.0001$).

As shown in Figure 1, the AUC value to distinguish between spondyloarthritis and healthy control was 0.705 ($p<0.0001$). IL-23 cut-off was 7.96 pg/mL (Sensitivity = 69.4%, specificity = 98.6%).

Conclusion: As reported to previous studies, our study showed that IL-23 is significantly higher in SA patients (2).

Interestingly, IL-23 was able to distinguish between SA patients and healthy controls with a cut-off of 7.96 pg/mL. This finding suggests that IL-23 may be practical for the diagnosis of SA.

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AB0841

ALTERED XANTHINE OXIDASE AND XANTHINE DEHYDROGENASE ACTIVITIES IN RED BLOOD CELLS AS A CONTRIBUTION TO AUTOIMMUNE ANEMIA APPEARANCE IN RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is severe autoimmune joint disease, accompanied by a wide variety of extra-articular manifestations. Anemia is one of the most common organ involvements in RA, being diagnosed in 36-65%

patients. Iron metabolism alterations, shortened RBC lifespan, and impaired erythropoiesis in bone marrow are believed to play a leading role in RA-related anemia development. These processes in RA can be mediated by increased effect of proinflammatory cytokines, including IFN γ and TNF α , and similar mechanisms could contribute to high xanthine oxidoreductase (XOR) expression. This enzyme makes multiple pathophysiological effects, some of which can be related to the development of anemia in RA. Reactive oxygen species generated by XOR are capable, in particular, of damaging cell membranes, exerting influence on iron mobilization from ferritin in liver, and inducing changes in intestinal iron absorption.

Objectives: Evaluation of changes in XOR interconvertible forms (xanthine oxidase and xanthine dehydrogenase) activities in RBC of RA patients.

Methods: The research was carried out in agreement with the WMA Declaration of Helsinki principles. 75 RA patients with verified RA were enrolled in the study. The diagnosis was verified using the ACR/EULAR criteria (2010). The reference group consisted of 35 healthy individuals. Xanthine oxidase (XO, EC 1.17.3.2) and xanthine dehydrogenase (XDG, EC 1.17.1.4) activities were measured in lysed red blood cells by spectrophotometric method as previously described [1]. The enzymatic activities were expressed as nmol/min/ml and normalized to 1×10^9 cells/ml. Statistical comparison tests were selected in according to common guidelines. Central tendencies were expressed as means $\pm$ SEM. Differences were considered significant when $p<0.05$.

Results: Mean age of RA patients was 43.9 ± 0.97 years, and mean RA duration was 8.5 ± 0.3 years. Extra-articular manifestations were diagnosed in 32 (42.7%) RA patients and 17 (53.1%) of them had anemia. We revealed substantial changes in XO and XDG activities in lysed RBC of RA patients with anemia. Increased XO activity and decreased XDG activity were observed in comparison with healthy controls ($p<0.001$ for both enzymes). In parallel with the increase in DAS28 index, significant growth of XOD/XDG coefficient was observed, which was caused by both XOD activity elevation and XDG activity reduction in lysed RBC ($p<0.001$ for both enzymes). Enzymatic activities depended also on the extra-articular RA manifestations. Mean XO activity was higher and mean XDG activity were lower in patients with extra-articular manifestations ($p<0.05$ for both enzymes), but the extent of changes was substantially less comparing to anemia.

Conclusion: Autoimmune inflammation in RA is accompanied by changes in enzymatic activities of XOR interconvertible forms and their ratio. Transformation of XDG into XO ultimately leads to significant increase in the generation of reactive oxygen species that have a damaging effect on lipids, proteins and other cellular components, and specifically in RBC. This fact may be one of the reasons for their premature damage and development of anemia in RA.

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AB0842

CESAREAN SECTION IN MEXICAN WOMEN WITH AUTOIMMUNE RHEUMATIC DISEASES

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Background: Rheumatic diseases occur among women of childbearing age, adverse events during pregnancy in rheumatic diseases have been frequently reported. Mexico has one of the largest prevalence of cesarean section in women which negatively impacts the product.

Objectives: The objective of this study is to describe the frequency of cesarean section in women with autoimmune rheumatic diseases compared to a control group.

Methods: We conducted a cross-sectional and retrospective study in patients from the pregnancy and rheumatic diseases clinic, and the Obstetrics department from the University Hospital "Dr. Jos E. Gonzlez" in Northeast Mexico. Women with autoimmune rheumatic diseases that gave birth between August 2017 to December 2020 were included. All the data, including the way of birth was retrieved from the clinical files.

Results: One hundred and twelve patients were included (56 in the rheumatic disease group and 56 women without rheumatic diseases), two of them suffered miscarriage (one from the rheumatic disease group and 1 from the control group) giving a total of 110 products. The mean age was 29.6 years for the rheumatic patients and 24.6 for the control group. The most frequent rheumatic disease was RA in 22 patients (39.2%), followed by SLE in 13 patients (23.21%).

From the 56 pregnancies on the rheumatic disease group more than half ended by cesarean section ($n=33$, 58.92%) and there were 22 simple vaginal delivery. Table 1. On the control group there were 24 cesarean section procedures and

31 simple vaginal delivery. The indications for cesarean sections are presented in Figure 1. No statistically significant difference was found on cesarean section prevalence between both groups ($p=0.389$).

The most common indication for cesarean section in all patients was previous cesarean procedure. ($n=12$, 36.36%). There were more pathological fetal cardiocardiographic changes (PFCC) as an indication for cesarean section on the rheumatic diseases group ($n=11$, $p=0.002$) compared with the control group ($n=1$).

Conclusion: A higher prevalence of cesarean sections was found in women with rheumatic diseases versus women without rheumatic diseases, although this difference was not statistically significant. Studies with a higher sample size are necessary to elucidate the complications and differences between both groups.

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Table 1. Demographic characteristics

DISEASE	N (%)	AGE, YEARS MEAN	DURATION OF DISEASE, YEARS MEAN	CESAREAN SECTION	SIMPLE VAGINAL DELIVERY	OTHERS
RA	22 (39.2%)	29.95	6.77	11	10	1 Miscarriage
APS	9 (16.98)	28.22	2.77	8	1	
DM	3	20	3.5	2	1	
	(5.35%)					
IA	3	21.5	3	2	1	
	(5.35%)					
SS	4 (7.14%)	30.25	4.75	3	1	
JIA	2 (3.57%)	36	15	1	1	
SLE	13 (23.21)	31.83	5.33	7	5	
TOTAL	56	29.64150943		33	22	

RA: Rheumatoid Arthritis, APS: Anti-phospholipid syndrome, DM: Dermatomyositis, IA: Idiopathic arthritis, SS: Sjogren syndrome, JIA: Juvenile idiopathic arthritis, SLE: Systemic Lupus Erythematosus

Figure 1. INDICATIONS FOR CESAREAN SECTION

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AB0843

OBSTETRIC AND PERINATAL OUTCOMES IN MEXICAN WOMEN WITH RHEUMATIC DISEASES

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Background: Rheumatic diseases (RD) are more frequent among women of childbearing age. Adverse events during pregnancy in RDs have been frequently reported, leading some women to avoid pregnancy. "CEER" is an outpatient clinic in Monterrey, Nuevo Leon, Mexico, that was created for pregnant women with RD.

Objectives: The objective is to describe pregnancy outcomes in patients with RD surveilled at a rheumatology outpatient clinic.

Methods: A single-center retrospective study of women with RD at CEER between 2017 and 2020 was conducted. Clinical features and maternal, fetal and neonatal outcomes were retrospectively collected. The rate of adverse perinatal outcomes (APO) was compared with the tertiary referral center's general obstetric population (GOP). All data was retrieved from clinical files.

Results: Overall, 62 pregnancies in women with RD were recorded. The median maternal age at conception was significantly higher in pregnancies with RD than GOP (29 [24-35] years old vs 23 [19-28] years old, $p<0.001$). The odds of preterm delivery were increased among pregnancies with RD (OR 1.85, 95% CI 1.03-3.30, $p=0.038$). Other APO are summarized in Table 1. Rheumatoid arthritis (RA) was the leading diagnosis followed by systemic erythematosus lupus (SLE) and antiphospholipid syndrome (APS).

Cesarean sections were recorded in 41 pregnancies in RD group, more frequent than in GOP (66.1% vs 50.8%, $p=0.016$). Figure 1 shows the distribution of indications for cesarean sections, the two leading indications were previous cesarean section (43.9%) and Nonreassuring fetal heart rate pattern (19.5%). Pregnancies with RD appeared to have frequent, emergency cesarean sections and preterm deliveries compared with GOP (12.9% vs 15.9%, $p=0.02$ and 23.7% vs 12.2%, $p=0.006$, respectively).

Conclusion: Pregnancies with RD were at increased risk for APO. Women of this population should be made aware of these risks and be closely monitored by a multidisciplinary team as a high-risk pregnancy.

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Table 1. Pregnant outcome, maternal, fetal and neonatal adverse events

	RD (n=62)	GOP (n=31254)	OR (CI 95%)	p
Pregnancy outcome				
Pregnancy loss ^a	6 (9.68)	1560 (4.99)	1.94 (0.84-4.49)	0.122
Live births ^a	60 (90.9)	29694 (95)	0.96 (0.67-1.35)	0.8
Gestational age,	37.6 (37-39)	39 (38-40.2)	-	<0.001
median (IQR) (weeks) ^b				
Birth weight,	2831.6 (2677.4-2985.8)	3022.2 (2986.8-3057.6)	-	0.007
mean (CI) (Kg) ^c				
Maternal adverse events				
Preterm deliveries	14 (23.7)	3821 (12.2)	1.85 (1.03-3.3)	0.038
Fetal adverse events				
(^a <37 weeks)				
<34 weeks ^a	3 (5.1)	1065 (3.4)	1.42 (0.45-4.53)	0.553
Gestational diabetes ^a	4 (6.5)	1406 (4.5)	1.43 (0.52-3.95)	0.485
Preeclampsia ^a	5 (8.1)	2471 (7.89)	1.02 (0.41-2.54)	0.97
Postpartum hemorrhage ^a	0	930 (2.97)	0.27 (0.017-4.35)	0.355
Emergency cesarean section ^a	8 (12.9)	1844 (5.9)	2.19 (1.05-4.57)	0.037
Maternal adverse events				
Miscarriages ^a	3 (4.8)	663 (2.12)	2.28 (0.71-7.29)	0.164
Stillbirths ^a	3 (4.8)	897 (2.87)	1.69 (0.53-5.38)	0.377
Congenital abnormalities ^a	4 (6.5)	1094 (3.5)	1.84 (0.67-5.08)	0.237

^an, %^bIQR, interquartile range (25th–75th percentile)^cCI, confidence interval (95%)