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Short Communication

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Less Offspring's in Systemic Lupus Erythematosus Patients; is it Infertility or Adverse Pregnancy Outcomes to Blame?

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Abstract

Background

Systemic Lupus Erythematosus (SLE) is a potentially fatal, chronic, multisystem autoimmune disorder that mainly affects female patients. The peak age of onset among women seems to be during child bearing years, between 15 and 40 years. Fertility can be negatively affected by disease activity (autoimmune oophoritis) or by the gonadotoxic medications used. Pregnancies in SLE are also associated with higher neonatal and maternal complications. Neonates born to mothers with SLE are more likely to be preterm, have a low birth weight and are associated with stillbirth compared to neonates born to healthy control mothers.

Keywords: Erythematosus; Infertility; Pregnancy; Autoimmune disorder

Introduction

Objectives

The aim was to assess the impact of SLE on the number of offspring's and the adverse pregnancy outcomes in an Egyptian group of female SLE patients compared to age matched controls [1-5].

Methods

This retrospective case control study was conducted in Rheumatology and Rehabilitation Department, Zagazig University Hospitals. Sixty female subjects were included: 30 SLE patients and 30 age matched apparently healthy volunteers. Written informed consent was obtained from all participants and the study was approved by the research ethical committee of Faculty of Medicine, Zagazig University. The comparison between both groups included the number of pregnancies, the number of offspring's, menopause, contraception use, pregnancy outcomes and maternal complications of pregnancy. A questionnaire was designed to cover these points.

Results

The data were coded, entered and processed on computer using Statistical Package for Social Science (SPSS) (version 18). P value was considered significant as the following: P>0.05: Non significant; P ≤ 0.05: Significant. There was a statistically significant difference between both groups regarding the number of children being significantly less in the SLE group (P<0.01) but not the number of pregnancies (P>0.05) denoting that patients had significantly less offspring's as a consequence of adverse pregnancy outcomes rather than infertility (Table 1).

Median (range)	Group 1 (No=30)	Group 2 (No=30)	MW	P. value
Number of pregnancies per woman Median (range)	3 (0-6)	3 (0-6)	331.5	0.232
Number of children per woman Median (range)	2 (0-5)	3 (0-6)	244.0	0.01 (S)
(HS) highly significant, (S) significant				

Table 1: Comparison between both groups regarding obstetric history.

The percentage of Miscarriage (at least one) was highly statistically significant higher among SLE group than control group (20% vs 3.3%). The percentage of hypertension in the studied Group I were higher than that of Group II (43.3% vs 6.7%). This study showed that, there was no statistically significant difference between the two groups regarding other adverse pregnancy outcomes including therapeutic abortion, still birth, neonatal death and preterm. There was no statistically significant difference between both groups regarding menopausal symptoms, menses and contraception use (Tables 2 and 3).

Conclusion

This present study shows that the reduction in the number of children compared to that of the controls was due to adverse pregnancy outcomes; particularly miscarriage. We finally conclude that despite au-

Pregnancy Outcomes	Group1 (No=30)	Group 2 (No=30)	Fisher	P. value
Miscarriage (at least one) No (%)	6(20.0%)	1(3.3%)	4.310	0.04 (S)
Therapeutic abortion No (%)	2 (6.7%)	0(0%)	2.069	0.150
Still birth No (%)	0(0%)	0(0%)	0	1

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Neonate death No (%)	3(10.0%)	1(3.3%)	1.071	0.301
Preterm No (%)	4(13.3%)	0(0%)	3.158	0.076
Gestational Diabetes No (%)	0(0%)	0(0%)	0	1
HTN in pregnancy No (%)	5(20.83%)	0(0%)	2.71	0.03 (S)
SLE flare in pregnancy No (%)	8(33.3%)	-	-	-
(HS) highly significant, (S) significant				

Table 2: Comparison between both groups regarding adverse pregnancy outcomes and maternal complications.

Gynecologic history	**Group I (No.=30)**	**Group II (No.=30)**	**Test**	**P.**
Onset of menarche (years) Mean + SD (range)	14.10 ± 2.857 (0-16)	14.6 ± 1.423 (12-17)	t=0	1.000
Menopausal symptoms No (%)	1(3.3%)	0 (0%)	X2=1.017	0.313
Hysterectomy causing menopause No (%)	0(0%)	0(0%)	X2=0.00	1
Irregular periods in non-menopausal No (%)	11(36.7%)	5(16.7%)	X2=3.068	0.80
Out of those married	Group I (No.=26)	Group II (No.=25)	Test	P.
Contraception (other than OCP) No (%)	14(53.84%)	16(64%)	X2=0.204	
Oral contraceptive pills (OCP) No (%)	5(19.23%)	7(28%)	X2=0.166	0.683
OCP oral contraceptive Pills				

Table 3: Comparison between both groups regarding gynecologic history.

toimmunity and aggressive medications even those known to affect fertility; SLE patients may have comparable number of pregnancies to normal premenopausal females. This highlights the importance of strict follow up during pregnancy to minimize fetal losses and maternal complications which may represent the main etiology of having less offsprings in some SLE populations.

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