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Systemic Lupus Erythematosus And Pregnancy : 4 Cases Report And Review Of The Literature

Med lemine ABDI,, Abderrahmane med cheikh, Sofia Jayi, Fatima Zohra fdili Aloui, Hikmat Chaara, Moulay Abdelilah Melhouf

Sidi Mohamed Ben Abdellah university, department of gynecology and Obstetrics II, university hospital of HASSAN II of FEZ.
Corresponding author : Med lemine ABDI, Sidi Mohamed Ben Abdellah university, department of gynecology and Obstetrics II, university hospital of HASSAN II of FEZ

Abstract: *SLE is a multisystem disorder that occurs predominantly in reproductive-aged women. For many years, women with SLE were counseled to avoid pregnancy because of concerns regarding disease flare and adverse pregnancy outcome. More recently, data suggest that many women with women can have successful pregnancies if disease is under good control and planned. Pregnancy in patients with SLE is associated with a higher risk of abortion, fetal death, premature birth, hypertension, venous thromboembolism, preeclampsia, eclampsia, intrauterine growth retardation, and neonatal lupus syndrome. We are reporting in this article 4 cases of pregnancy associated with lupus through which we made a review of the literature concerning the effect of lupus on pregnancy and the effect of the pregnancy on a lupus.*

Keywords: Systemic lupus, pregnancy, impact on maternal

Introduction :

SLE is a multisystem disorder that occurs predominantly in reproductive-aged women. For many years, women with SLE were counseled to avoid pregnancy because of concerns regarding disease flare and adverse pregnancy outcome. More recently, data suggest that many women with women can have successful pregnancies if disease is under good control and planned **(1)**
Pregnancy represents a critical period in women's life due to profound immunological and hormonal changes that must occur to tolerate the fetus.The interaction of SLE and the immunologic adaptations of pregnancy lead to unique challenges in this setting,as alterations in immune mechanisms can have consequences both for the fetus and for the mother **(2)**
Patients with SLE are at high risk for adverse pregnancy outcomes (APOs) compared tothe healthy population. **(3)**
Pregnancy in patients with SLE is associated with a higher risk of abortion, fetal death, premature birth, hypertension, venous thromboembolism, preeclampsia, eclampsia, intrauterine growth retardation, and neonatal lupus syndrome **(4,5)**
We are reporting in this article 4 cases of pregnancy associated with lupus through which we made a review of the literature concerning the effect of lupus on pregnancy and the effect of the pregnancy on a lupus.

Case 1

A 19 years old patient with no particular significant history, primigeste who was addressed for the management of a pregnancy of 12 weeks of gestation with lupus discovered fortuitously during the etiological assessment of a deep venous thrombosis of the lower left limb.
She is on Aspegic 100 mg/d, plaquenil 400 mg/d and Hibor 5000 IU per day
At her first consultation, she was stable with normal blood pressure and a negative urine test.
She received a clinical examination returning normal outside of swelling of the lower left limb.
An obstetric ultrasound that made it possible to date the pregnancy to better organize the follow-up.
A biological assessment carried out found a normal hemogram with a proteinuria of 24h negative, ANN +; Ac Anti SSA+ and Ac Anti SSB - and normal C3 and C4 supplements.
Thus, the patient was the subject of a multidisciplinary monthly monitoring by an internist doctor and by the obstetrical team.
During the monitoring, she remained stable with normal blood pressure counts and a negative urine strip
Obstetrically: the fetus has maintained normal growth without Doppler abnormalities
Biologically: monthly monitoring was without any particularity
In addition, she benefited from cardiac and renal exploration by ultrasound not finding any abnormality
Therapeutically: she remained on plaquenil 400mg/d, Hibor 5000IU in SC/d and Aspégic 100mg/d.
The aspegic was stopped at 36 week of gestation and the pregnancy continued until 37 week + 4 days when she gave birth vaginally to a eutrophic fetus after spontaneous labor.
The delivery went smoothly, and the post-partum was simple.

Case 2: 33-year-old patient followed for 4 years for systemic lupus with cutaneous and articular hematological tropism with discovery of an antiphospholipid antibody syndrome following cerebral venous thrombosis and secondary goujerot shogrensyndrome. In complete remission for 2 years.
She is on cortancyl 5mg/d, Sintrom 1/4 per day and Plaquenil 400mg/d

G1P0: Grossesse followed in our department from the 24th week of amenorrhea marked by the discovery of gestational diabetes for which she was put on insulin and two hospitalizations. The first for unbalanced diabetes and the second for a flare-up of cutaneous lupus and AVK switch.
The lupus flare-up required the increase in the dose of cortancyl from 5mg to 30mg per day with the introduction of topical corticosteroids.
During pregnancy follow-up blood pressure remained correct with a negative urine strip
Ultrasound there was no fetal impact and the Dopplers remained normal
Biologically: there were positive anti-SSA and anti-SSB Ac
She also benefited from a cardiac and renal ultrasound returning without particularities.
Pregnancy progressed to 38 weeks of amenorrhea with uncomplicated vaginal delivery of a eutrophic newborn and single-layer consequences

Observation 3:

Patient of 29 years followed since 8 years for lupus nephropathy under plaquenil, cortancyl, cardix, immurel and aspegic, G3P2 carrier of a single pregnancy whose follow-up started at 15 weeks of amenorrhea.
The course of pregnancy was characterized by a close monthly multidisciplinary monitoring between internal medicine and the obstetrics department.
During the monitoring, clinically the pregnant woman remained stable without high blood pressure. Biologically the blood sample was normal with normal C3 and C4 throughout pregnancy, we noticed the worsening of proteinuria at 28 weeks of gestation, Ac anti SSA + and AC anti SSB -.
The fetus monitoring by ultrasound showed that he has maintained good growth without abnormality of uterine Dopplers.
Therapeutically, there has been an increase in the dose of cortancyl from 5 mg to 10 mg per day.
She also benefited from a cardiac echo returning without particularity.
She gave birth at term vaginally without complications and the post-partum was without particularity.

Observation 4 :

Patient aged of 32 years followed for lupus nephropathy in remission for 6 years under cortancyl 5mg / d, Plaquenil 400mg / d and Immunol 100 mg / d, mother of 2 children pregnant of a single pregnancy whose follow-up in our department began at 28 SA
The course of the pregnancy was without particularity and the monitoring was multidisciplinary follow-up associating internal medicine and obstetrician
The patient remained stable with a good blood pressure throughout the follow-up.
Biologically: the assessment was without particularity with normal C3 and C4 supplements as well as the proteinuria of the 24 hours remained negative throughout the pregnancy
Ultrasound: the fetus maintained good growth without Doppler abnormalities.
Therapeutically: the same dosages of the usual drugs were maintained without any recourse to an additional molecule
She gave birth to a eutrophic newborn vaginally without complications

Discussion:

Systemic lupus erythematosus (SLE) predominantly affects women of childbearing age. Pregnant women with SLE are at increased risk for preterm birth, intrauterine growth restriction, fetal loss, and pre-eclampsia **(6)**
Previously, pregnancy in SLE women was discouraged due to concerns of disease flares or adverse pregnancy outcomes (APOs). Nowadays, a better understanding of the relation ship between disease and pregnancy has resulted in individual risk-based monitoring and management to achieve successful pregnancy outcomes in SLE patients **(7)**
Increased experience and numerous studies have led to better quantitation of factors contributing to adverse pregnancy outcomes(APOs) in women with SLE, allowing physicians and patients to proactively pursue management strategies to improve outcomes **(8)**
Identification of risk factors, preconception disease control, prompt recognition of flares, and a multidisciplinary approach can meaningfully improve outcomes
During pregnancy, the clinicalcondition of such patients may deteriorate **(9,10)**
An increase in the SLE activity during pregnancy, as well as maternal and fetal complications, are two major concerns among pregnant women with SLE **(11)**
Concerning the effects of pregnancy on systemic lupus erythematosus**,** Immunologic adaptations during pregnancy and post partum can influence maternal auto immune disease in sever always. Since SLE is considered mainly a Th2-mediated disease, immune pregnancy-related changes could trigger the onset of the disease or increase the risk of disease flares during this period **(12)**
The risk of SLE flares during pregnancy has been a matter of debate. Most of prospective studies in SLE pregnancies have shown that the risk of disease flare is higher during pregnancy, although there are some discrepancies due to heterogeneity of lupus flare definition and tools used to assess lupus activity. **(13)**
The majority of these flares are considered mild to moderate and may include renal, hematological and musculo skeletal systems. Likewise, previous organ involvement seems to predict the same type of condition during pregnancy.Disease activity at conception

and in the previous 6 months, both clinical and serological, is a key predictor, not only for obstetrical complications, but also of SLE flares during pregnancy. SLE disease activity immediately prior to pregnancy also impacts damage accrual after pregnancy. **(14)**
On the other hand,SLE activity during or prior to pregnancy is associated with several maternal and fetal complications such as fetal loss, preterm birth, intrauterine growth retardation (IUGR) and hypertensive complications. Therefore, early identification and prompt treatment in pregnant women with lupus activity is essential to improve pregnancy outcomes.
Systemic lupus erythematosus has also effect on pregnancy. Despite diagnostic and therapeutic advances , pregnancies in SLE patients are still considered a high risk condition due to an elevated risk of major obstetric and neonatal complications. A population-based study from 2000 to 2003 found that maternal mortality was 20-fold higher among women with SLE. The risk for serious medical and pregnancy-assocaited complications was also 3 to7- fold higher for SLE women compared to the general population **(15)**
In recent years ,outcomes during pregnancy in patients with SLE have improved as a result of preconceptional counseling, close monitoring during pregnancy and post partum and multidisciplinary management **(16)**
However, according to a recent meta-analysis, maternal and fetal morbidity is still higher in pregnancies of women with SLE.
Additionally,it has been estimated that women with SLE have fewer live births compared to the general population. **(17)**
Pregnant women with SLE are at increased risk for preterm birth, intrauterine growth restriction, fetal loss, and pre-eclampsia. **(18)**
During pregnancy patients with SLE should be managed by a multidisciplinary team, including a rheumatologist, obstetrician,a maternal–fetal medicine physician and other special-ists depending on organ involvement. Close obstetric and rheumatologic monitoring involving baseline and regular clinical, laboratory and obstetric ultrasound evaluations is recomended. **(18,19)**.
Disease activity assessment by a rheumatologist should be performed at baseline and every 4–6 weeks, according to disease status and risk stratification, to early recognize signs of disease flare or pregnancy complications. At baseline, predictive factors must be identified. Particular attention to blood pressure, blood count, renal and hepatic function, urinalysis and proteinuria is suggested at follow-up visits. Anti-dsDNA antibodies and complement C3 and C4 should be measured every trimester **(18)**

Conclusion:

SLE indeed has a significant impact on maternal and fetal outcomes after pregnancy. Therefore, special treatments and care should be associated with these patients in order to manage any adverse effects that may result, improve the success of normal delivery of full-term infants and reduce birth defects in infants. born to mothers with SLE.

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