

CASE REPORT

Successful Pregnancy Outcome in a Case of Systemic Lupus Erythematosus

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ABSTRACT

Systemic lupus erythematosus (SLE) is an autoimmune disease most frequently found in women of childbearing age and may coexist with pregnancy. Disease exacerbation, increased fetal loss, neonatal lupus, and an increased incidence of preeclampsia are the major challenges. Its multisystem involvement and therapeutic interventions like anticoagulants, steroids, and immunosuppressive agents pose a high risk for both the mother and the fetus during the antenatal period as well as postpartum. Good multidisciplinary medical care is mandatory when detection or flare-up of SLE occurs during pregnancy.

We describe the successful management of an antinuclear antibody, antiribonucleoprotein antibody, and anti-Sjogren's syndrome A (Ro) antibody positive parturient with bad obstetric history who underwent elective cesarean section and delivered a healthy child.

Keywords: Autoimmune, Pregnancy, Systemic lupus erythematosus.

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INTRODUCTION

Systemic lupus erythematosus (SLE) is an autoantibody-mediated multisystem autoimmune disease, with considerable female predominance. The usual disease onset is in the third to fourth decades of life, in the reproductive years.¹ The SLE may also be associated with secondary antiphospholipid syndrome, which is a multisystem disorder characterized by recurrent abortions and also other systemic manifestations.

Women with SLE are at higher risk for exacerbations of the disease during pregnancy, spontaneous abortions, intrauterine fetal death, preeclampsia and eclampsia, preterm delivery, and intrauterine growth restriction.² However, there has been a trend toward more favorable outcomes.

Pregnancy and its outcome is a major concern to most SLE patients. Queries regarding the safety of various drugs used are often raised. The diagnostic criteria of SLE, if first suspected during pregnancy, is not different from those of nonpregnant women.³ The pregnancy outcomes over the past few decades has been good if treatment with adequate immunosuppressive agents was started as soon as the diagnosis was made.

The prognosis for both mother and child is best when SLE has been quiescent for at least 6 months prior to the pregnancy.⁴ Disease flares during SLE pregnancy pose challenges with respect to distinguishing physiologic changes related to pregnancy from disease-related manifestations.⁵ Thus, a multidisciplinary approach with close medical, obstetric, and neonatal monitoring is necessary to optimize both maternal and fetal outcomes.

CASE REPORT

A 30-year-old lady, G₃A₂, was admitted to Jagadguru Sri Shivarathreeshwara Hospital, Mysuru, India, at 35 weeks with history of recurrent anemia since the 6th month of pregnancy, requiring three pints of blood transfusion done elsewhere. She was married for the past 3 years. She had previous two consecutive spontaneous abortions, both at 3 months, and subsequently underwent dilation and curettage. She had no history of hypertension, diabetes, bronchial asthma, or hypothyroidism. She did not have any history of skin rash, oral ulcers, or joint pains.

After her admission, she was investigated in view of her recurrent anemia. A battery of blood investigations were performed. Her complete blood count, blood sugar, and urine examination were normal. Liver and renal function tests and electrocardiogram were further ordered, and everything was found to be normal. Her antinuclear antibody (ANA), antiribonucleoprotein antibody, and anti-Sjogren's syndrome A (Ro) antibody were positive. Her direct Coomb's test, anticardiolipin antibody, and lupus anticoagulant status were negative.

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As her ANA status was positive, and she was negative for antiphospholipid antibody, a diagnosis of SLE was made, although there was no history suggestive of any systemic involvement.

She was started on steroids 0.5 mg/kg and hydroxychloroquine (HCQ) as per the advice of the rheumatologist. She was also diagnosed to be hypertensive in the ward and was started on antihypertensives. She was also started on unfractionated heparin 2500 IU subcutaneously twice daily. Her prothrombin time with international normalized ratio and activated thromboplastin time were carefully monitored.

She was planned for termination of pregnancy at 37 weeks of gestation in view of recurrent anemia, worsening albuminuria, and uncontrolled hypertension (severe preeclampsia)—lately diagnosed. She delivered a male baby of birth weight 3.2 kg by elective cesarean section. She developed postpartum hemorrhage 2 hours after the cesarean section and required blood transfusion, component transfusion, and adequate uterotonics. She was restarted on Inj. heparin 40 mg subcutaneously once daily for 3 days. Her blood pressure gradually decreased. Her antihypertensives and steroids were tapered. Her postoperative period was uneventful and she was discharged on postoperative day 7.

DISCUSSION

The peak incidence of SLE occurs between the ages of 15 and 40 years, with an estimated female-to-male incidence of 9:1.⁶ It is characterized by autoantibody production and a dysfunctional immune system resulting in organ inflammation and consequent damage. A positive ANA test is the characteristic laboratory test used to help diagnose lupus. Onset of SLE during pregnancy may pose a serious threat to the conceptus, with an overall loss rate of 29%.⁷

The revised diagnostic criteria for SLE, established in 1997, revealed no overlap in its symptoms and signs with the normal physiologic changes of pregnancy. The complements C3 and C4 change frequently in pregnant women compared with nonpregnant women, which means the change is more significant when serum levels are low during pregnancy.⁸ Therefore, there is no difference in the diagnosis of SLE whether the patient is pregnant or not. In the above discussed case, the patient's ANA status was positive, and it is the screening test for SLE. The double-stranded deoxyribonucleic acid antibody, found in 80 to 90% of patients,⁹ was not only the most specific marker for the presence of SLE, but also served as an indicator of the disease activity.¹⁰

The SLE in pregnancy, due to above factors, may present with neonatal losses, cervicitis, and infertility.

The risks for other serious complications, such as preeclampsia as in our case, bleeding, and serious infections, are also raised twofold to eightfold.¹¹ The fetal complications are higher rates of fetal loss, preterm birth, intrauterine growth restriction, and neonatal lupus syndromes.

Methotrexate and cyclophosphamide, being harmful to the fetus, are not used during pregnancy, especially during the first trimester.¹² The HCQ is safe to use during pregnancy, especially in cases with malar rash, and discontinuation may result in lupus flare.¹³ The combination of prednisolone with either HCQ or azathioprine is safe during pregnancy, and depending on the disease activity reduces the dosage of steroids.

The differentiation between lupus nephritis or SLE flare and preeclampsia is difficult based on laboratory findings. However, prompt delivery is the optimal management for mothers with SLE to avoid serious complications of preeclampsia including fetal hypoxia.¹⁴

CONCLUSION

Advancing technology and better understanding of the maternal–fetal relationship in lupus have improved outcomes in lupus pregnancies over the last decade. The multisystem nature of the disease and the severity of the organ involvement need to be assessed, and a multidisciplinary approach is required for its diagnosis and successful management.

REFERENCES

1. Lateef A, Petri M. Management of pregnancy in systemic lupus erythematosus. *Nat Rev Rheumatol* 2012 Dec;8(12):710-718.
2. Dhar JP, Sokol RJ. Lupus and pregnancy: complex yet manageable. *Clin Med Res* 2006 Dec;4(4):310-321.
3. Yang MJ, Cheng MH, Lin HY. Onset of systemic lupus erythematosus during pregnancy. *J Chin Med Assoc* 2006 Mar;69(3):130-133.
4. Clowse ME, Jamison M, Myers E, James AH. A national study of the complications of lupus in pregnancy. *Am J Obstet Gynecol* 2008 Aug;199(2):127.e1-127.e6.
5. Rai R, Cohen H, Dave M, Regan L. Randomised controlled trial of aspirin and aspirin plus heparin in pregnant women with recurrent miscarriage associated with phospholipid antibodies (or antiphospholipid antibodies). *BMJ* 1997 Jan;314(7076):253-257.
6. Ticconi C, Rotondi F, Veglia M, Pietropolli A, Bernardini S, Ria F, Caruso A, Di Simone N. Antinuclear autoantibodies in women with recurrent pregnancy loss. *Am J Reprod Immunol* 2010 Dec;64(6):384-392.
7. Derksen RH, Khamashta MA, Branch DW. Management of the obstetric antiphospholipid syndrome. *Arthritis Rheum* 2004 Apr;50(4):1028-1039.

8. McMillan E, Martin WL, Waugh J, Rushton I, Lewis M, Clutton-Brock T, Townend JN, Kilby MD, Gordon C. Management of pregnancy in women with pulmonary hypertension secondary to SLE and anti-phospholipid syndrome. *Lupus* 2002;11(6):392-398.
9. Tanaka E, Harigai M, Tanaka M, Kawaguchi Y, Hara M, Kamatani N. Pulmonary hypertension in systemic lupus erythematosus: evaluation of clinical characteristics and response to immunosuppressive treatment. *J Rheumatol* 2002 Feb;29(2):282-287.
10. Budev MM, Arroliga AC, Emery S. Exacerbation of underlying pulmonary disease in pregnancy. *Crit Care Med* 2005 Oct;33(Suppl 10):S313-S318.
11. Weiss BM, Hess OM. Pulmonary vascular disease and pregnancy: current controversies, management strategies, and perspectives. *Eur Heart J* 2000 Jan;21(2):104-115.
12. Robson SC, Hunter S, Boys RJ, Dunlop W. Serial changes in pulmonary haemodynamics during human pregnancy: a non-invasive study using Doppler echocardiography. *Clin Sci* 1991 Feb;80(2):113-117.
13. Urowitz MB, Gladman DD, Farewell VT, Stewart J, McDonald J. Lupus and pregnancy studies. *Arthritis Rheum* 1993 Oct;36(10):1392-1397.
14. Khamashta MA, Ruiz-Irastorza G, Hughes GR. Systemic lupus erythematosus flares during pregnancy. *Rheum Dis Clin North Am* 1997 Feb;23(1):15-30.