

## Case Report

# Successful outcome of pregnancy in a case of systemic lupus erythematosus: a case report

Gurinder Mohan<sup>1</sup>, Avleen Kaur<sup>2\*</sup>, Umang<sup>3</sup>

<sup>1</sup>Department of Medicine, Siri Guru Ram Dass University of Health & Sciences vallah, Amritsar, Punjab, India

<sup>2</sup>Department of Department of Obstetrics and Gynecology, Sanghnia Hospital, Amritsar, Punjab, India

<sup>3</sup>Department of Obstetrics and Gynaecology, Siri Guru Ram Dass University of Health & Sciences Vallah, Amritsar, Punjab, India

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### \*Correspondence:

Dr. Avleen kaur,

E-mail: [avleenrakhra1993@gmail.com](mailto:avleenrakhra1993@gmail.com)

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### ABSTRACT

Systemic lupus erythematosus (SLE) is a multisystem, auto immune connective tissue disease that commonly affects women of reproductive age and may coexist with pregnancy. The autoantibodies and immune complexes lead to damage of various organs and tissues. Pregnant woman with SLE have increased risk of spontaneous abortion, preterm delivery, intrauterine growth retardation, preeclampsia, neonatal lupus, stillbirth and intrauterine fetal death. The therapeutic intervention with anticoagulants, steroids, immunosuppressive agents pose a high risk to both mother and fetus. A multidisciplinary approach and close medical, obstetrical and neonatal monitoring leads to optimal outcome. Authors describe a successful management of an antenatal patient with positive antinuclear antibody, anti-ds DNA antibody and antiphospholipid antibody with bad obstetric history. She underwent an emergency cesarean section and delivered a healthy female child.

**Keywords:** Antiphospholipid antibody, Autoimmune, Pregnancy, Systemic lupus erythematosus

### INTRODUCTION

The patients with SLE are at high risk of adverse pregnancy outcome. However the rate of pregnancy loss has decreased from 43% to 17% in recent years.<sup>1</sup> Preconceptional counselling is essential in patients of SLE. Recent studies have reported that both maternal and fetal outcome are favourable if SLE has been quiescent for at least 6 months prior to pregnancy.<sup>2</sup>

SLE can also be associated with secondary antiphospholipid syndrome, which can lead to recurrent abortions. Women with SLE can have exacerbation of disease during pregnancy. There is increase incidence of spontaneous abortion, preterm delivery, intrauterine

growth retardation, preeclampsia, eclampsia, intrauterine death.<sup>3</sup> With improvement of understanding of pathogenesis of SLE and judicious use of immunosuppressive drugs, better disease control can now be achieved. Early detection of threats to maternal and fetal well-being should be done to achieve the optimum results.

### CASE REPORT

A 33 years old unbooked patient, G7A6 was admitted to SGRD hospital, Amritsar at 25 weeks 4 days gestation (LMP: 18-12-2017, EDOD 25-9-2018). She was married for 6 years. She had previous 6 consecutive spontaneous abortions, all between 21/2-3 months of gestation and

subsequently underwent dilatation and curettage. She had no history of hypertension, diabetes mellitus, bronchial asthma or hypothyroidism. There was no history of skin rash, oral ulcers or joint pains.

On examination she was poorly built, poorly nourished, anemic, not icteric. Examination of heart, chest, neurological system was unremarkable. On obstetric examination uterine height was corresponding to 26 weeks of gestation fetal parts were palpable and fetal heart was regular. Ultrasound examination revealed a single fetus of 25 weeks 6 days, Placenta anterior grade I, amniotic fluid was normal. The blood investigations revealed: Hb-8.9 gm%, PCV 28%, peripheral blood smear revealed microcytic hypochromic anemia. Urine complete examination was normal. Blood sugar, ECG, liver function tests, renal function tests, coagulation profile were normal. Her antinuclear antibody (ANA), anti-double stranded DNA (anti dsDNA) were positive. C3 and C4 levels were normal. Anticardiolipin antibody and lupus anticoagulant status was positive. There was no history suggestive of systemic involvement. Physician's opinion was obtained. The patient was started on Aspirin (75 mg OD), Methyl Prednisolone 20 mg/kg/day initially for one week and then followed by tab. Prednisolone (2.5 mg/kg/day). She was also started on hydroxychloroquine (200mg/day) and Inj. Heparin 40 mg SC twice daily in addition to haematinics and calcium. Her prothrombin time with international normalized ratio and activated thromboplastin time were carefully monitored. After initial management she was discharged and followed up in antenatal outpatient department after every two weeks initially till 28 weeks and thereafter weekly. Apart from routine obstetric management patient was monitored with hemogram, platelet count, urine analysis and renal function tests weekly.

At 32 weeks gestation, patient was admitted for vigilant maternal and fetal monitoring. Antenatal fetal surveillance was done with biweekly Non stress test and Doppler study. At 35 weeks, 4 days patient went into spontaneous labour. Continuous electronic fetal monitoring during 1st stage of labour detected fetal distress, which was confirmed by meconium stained liquor on aminotomy. She was taken up for emergency cesarean section, delivered an alive female baby 2.3 kg weight. Baby cried immediately after birth and had normal Apgar score. Postoperatively patient was treated with antibiotics and tab. Prednisolone (5 mg OD). Inj Heparin 40 mg SC once daily was restarted 48 hours postoperatively. Her post-operative period was uneventful and she was discharged on 7th postoperative day. Patient has been regularly followed up in medicine outpatient department and steroids are being continued.

## DISCUSSION

The peak incidence of SLE is between the age of 15 and 40 years with estimated female to male incidence of 9:1.<sup>4</sup> Active lupus at the time of conception is associated with

higher risk of disease flares during pregnancy.<sup>5</sup> Onset of SLE during pregnancy may pose a serious threat to fetus, with an overall loss rate of 29%.<sup>6</sup> So an essential component is preconceptional counselling and disease control and optimization of therapy prior to pregnancy. During pregnancy patient should be investigated for blood counts, urine protein, creatinine clearance, anti-ds DNA titres. Blood pressure should also be monitored. Specific monitoring and treatment protocols are required if specific antibodies (APL and anti Ro) are present. Pregnancy with anti Ro antibodies has high risk of congenital heart block in neonates.

The predictors for bad maternal and fetal outcome are SLE activity at pregnancy onset, severity of renal disease, the presence of hypertension or lupus anticoagulant.<sup>7</sup> Our patient was also aPL antibody positive and LA positive and she had 6 consecutive miscarriages. Still fetal outcome was good. Low dose aspirin (75 mg/day) and subcutaneous low molecular weight heparin (5000 IU) was started twice a day, apart from close monitoring and regular follow up.

Pregnancy in SLE also has high risk for premature delivery and still birth.<sup>8</sup> This patient also had premature delivery at 35 weeks 4 days. Disease flares during pregnancy can be controlled by giving short courses of high dose methyl prednisolone followed by oral prednisolone. Hydroxychloroquine should be continued in all pregnant women with SLE as it reduces the dose of steroids and is safe in pregnancy.<sup>9</sup>

## CONCLUSION

SLE patients should not be deprived of opportunity for bearing children. Good pregnancy outcomes are expected in women with SLE in remission. A thorough and detailed discussion with couples regarding the optimal time of conception, risk of disease flares, possible maternal and fetal complications during pregnancy should be done. The patients should be closely monitored by an obstetrician, medical specialist and pediatrician for a successful management.

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