

A Case of SLE Complicating Pregnancy, it's Outcome and Management

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Abstract: A 33 years gravida 3 para 1 live 1 woman with 2 months amenorrhea admitted in SBMCH OBG ward with complaints of lower abdomen pain. She is a known case of systemic lupus erythematosus with grade IV lupus nephritis first diagnosed at 16 years of age(2008).

Keywords: Systemic lupus erythematosus, lupus nephritis, missed abortion

1. Introduction

Systemic lupus erythematosus (SLE) is a chronic, multisystemic autoimmune disease that occurs predominantly in women of fertile age. The risk of obstetric complications in pregnant SLE patients is significant, being

- 1) Spontaneous abortion
- 2) Intrauterine fetal death
- 3) Preeclampsia (PE), lupus nephritis
- 4) Intrauterine growth restriction (IUGR)
- 5) Preterm birth, PROM, Neonatal lupus

- Pregnancy may be associated with disease flares requiring immunosuppressive therapy.
- Maternal health and fetal development should be monitored frequently during pregnancy..
- A multidisciplinary approach with rheumatologic and neonatal team is mandatory for a successful outcome of this pregnancy.
- Patients with a high degree of irreversible organ damage are more likely to suffer complications or worsening of previous damage during and after pregnancy .
- LN is a major manifestation of SLE .
- SLE patients with active LN are at higher risk for pregnancy complications than those without. It is advisable to have a remission of more than 6 months and a 24 hour urine protein of less than 300mg for a good prognosis.
- Pregnancy outcome:
- Maternal lupus activity and the presence of concomitant antiphospholipid syndrome (APS) were found to be associated with major obstetrical complications
- The risk of PE, IUGR, fetal loss and preterm delivery is greater in patients with SLE compared to general population, especially in those with active nephritis.
- The presence of lupus anticoagulant (LAC), isolated or in combination with anticardiolipin (aCL) and/or anti-beta2-glycoprotein I (anti-β2GPI), was the strongest marker related to poor obstetric outcomes. Low complement levels were found in almost 50% of the complicated cases, showing classic complement pathway activation. Both low complement and presence of anti-DNA in the second trimester were associated with higher rate of fetal loss and preterm delivery.

2. Case Report

A 33 years gravida 3 para 1 live 1 woman with 2 months amenorrhea admitted in SBMCH OBG ward with complaints of lower abdomen pain. No H/O bleeding p/v.

She is a known case of systemic lupus erythematosus with grade IV lupus nephritis first diagnosed at 16 years of age(2008).

She had one live female child of 8 years delivered by cesarean section (IND: fetal distress)

She had history of one missed abortion at 2016 march for which she underwent dilation and evacuation. she was on mycophenolate mofetil at that time of abortion.

Patient also gives h/o seizures in the past and is on medication for the same. last episode of seizure 1 year ago.

She had history of periorbital edema and pedal edema and decreased urine output. she was diagnosed as acute kidney injury at 2015 for which she was treated conservatively.

Patient was currently on T. Azathioprine 50mg OD, T. Hydroxychloroquine 200mg OD, T. Prednisolone 10mg BD, T. Levipill 500mg OD.

On examination

General condition- fair, conscious, oriented, thin build lady
Not anemic, patient not dyspnoeic / tachypnoeic, no pedal edema

CVS-S1 S2+ No murmurs,

RS-B/L NVBS,

P/A- Soft, nontender,

P/V- Cervix pointed downwards, uterus anteverted, bulky, fornices- free, nontender, no cervical motion tenderness.

Ultrasound done showed a feures suggestive of missed abortion at 7 weeks.

Renal and Liver parameters are within normal limits.

APLA (lupus anticoagulant, anti cardiolipin antibody, anti beta 2 glycoprotein) are WNL. Patient is treated symptomatically for abdominal pain

Suction and evacuation done.

Intraop and postop period uneventful.

Multidisciplinary Approach

Visits, Laboratory Tests, and Ultrasound Evaluation Recommended during Prenatal Care of Patients with Lupus

Visits: Maternal health and fetal development should be monitored frequently during pregnancy.

Regular follow up with the obstetrician and rheumatologist is mandatory.

- a) Monthly until 20 weeks,
- b) Every two weeks until 28 weeks,
- c) Weekly after 28 weeks until delivery.

(ii) Rheumatologist visits are as follows:

- a) Ideally, a rheumatologist should support the obstetrician during prenatal care;
- b) If not possible, the rheumatologist should see the patient every 4–6 weeks.

Laboratory Tests

(i) First visit tests are as follows:

- a) Complete blood count, platelet count, prothrombin activation time, and partial thromboplastin time;
- b) Lupus anticoagulant; anticardiolipin antibody IgG and IgM; and anti- β 2 glycoprotein I IgG and IgM (which must be repeated in 12 weeks if positive)
- c) Blood glucose, BUN, creatinine, uric acid, AST, and ALT;
- d) Anti-DNA, C3, C4
- e) Urine albumin, 24-hour proteinuria or protein/creatinine ratio in a single urine and urine culture.

(ii) Quarterly visit tests are as follows:

- a) Complete blood count, platelet count;
- b) Anti-DNA, C3, C4,
- c) Blood glucose, BUN, creatinine, uric acid, AST, and ALT;
- d) 24-hour proteinuria or SPOT PCR

(iii) Ultrasound and Doppler Velocimetry Studies. They include the following:

- a) Monthly after 24 weeks: evaluation of fetal growth, amniotic fluid, and umbilical artery (fetal-placental flow),
- b) Uterine artery evaluation at 24 weeks: screening tests for preeclampsia and intrauterine growth restriction.

3. Conclusion

Antenatal management of pregnant patients with SLE requires close monitoring and collaboration between rheumatologist and obstetrician. With better treatments and preservation of renal function, combined with current recommendations for planning pregnancy during the quiescent period, a better maternal and fetal prognosis can be expected in pregnancies of patients with SLE.

Lupus nephritis is not a contraindication to pregnancy although recommend waiting until remission for atleast 6

months to decrease obstetrical risks including hypertension and proteinuria

Patients with lupus nephritis high risk of preeclampsia and so closely monitor by multidisplinary approach throughout their pregnancies.

Monitoring of serum sFlit levels may become screening tool for predictor of preeclampsia in future (FDA not yet approved)