# Lupus Nephritis and Pregnancy: Case Report

## Ahmet KALE, A. İrfan GÜZEL, Mahmut ERDEMOĞLU, Umur KUYUMCUOĞLU, Nurten AKDENİZ

Kadir KANGAL

#### Diyarbakır, Turkey

Our aim is to report of a pregnant woman with lupus nephritis; A 33-year-old multigravida (gravida:5,parity:4) with an intrauterine pregnancy at 34 weeks of pregnant woman with 5 years of uncontrolled SLE.

Pregnancy can be successful in most women with lupus nephritis. Pregnancy in SLE should be planned and a management strategy should be agreed in full consultation with the patient, prior to conception. Women with SLE frequently need treatment throughout pregnancy. It is essential that the maternal disease is well controlled prior to, during and after pregnancy to ensure the best possible outcome for the mother and child.

Key Words: SLE, Pregnancy, Nephritis, Preterm Labor

Gynecol Obstet Rebrod Med;15:2 (111-112)

## Introduction

Lupus is an chronic inflamatory and multisystem disease which damages the tissues and cells by autoimmunes and immune complexes.1 By the years, understanding the mechanism and multidisciplinary approach to therapy of lupus have led to beter pregnancy outcome.<sup>2</sup> The management of pregnancy in SLE should start before conception so as to optimize maternal health. The disease is not in itself a contra-indication to pregnancy, but the relations between SLE and pregnancy found high fetal and maternal risks notably, when pregnancy occurs in active SLE. SLE tends to flare during pregnancy and the puerperium. Maternal flares are associated with increased prematurity,3 and active nephritis has been shown to be an independent factor for fetal mortality.<sup>4</sup> Nephritis is known to be one of the most serious complications of SLE and a strong predictor of poor outcome. Prophylactic steroids are a choice in management but There is no evidence that prophylactic steroids lower the frequency of flares, and there are significant adverse effects during pregnancy: premature rupture of membranes; infections; intra-uterinegrowth restriction; hypertension; gestational diabetes; osteoporosis; and avascular necrosis.5

The purpose of this case report is to inform a pregnant woman with uncontrolled lupus nephritis.

Department of Obstetrics and Gynecology, Dicle University Faculty of Medicine, Diyarbakır

Address of Correspondence:	Ahmet Kale Dicle University Faculty of Medicine Department of Obstetrics and Gynecology drakale@dicle.edu.tr
Submitted for Publication:	13.02.2009
Accepted for Publication:	09.06.2009

## **Case Report**

A 33-year-old multigravida (gravida:5, parite: 4) with an intrauterine pregnancy at 34 weeks of pregnant woman with 5 years of uncontrolled SLE. Her family reported that she has never used her therapy orderly. We noted during her physical examination that; she had photosensitivity, bilateral lower extremity edema, malar rash, discoid rash and artralgia. Her vital signs were temperature 36.8°C, blood pressure 190/120 mmHg, pulse 92 beats/min, respiratory rate 18/min. The examination of heart, chest, lymph node, neurological system were unremarkable. Initial laboratory values were WBC 7,85 K/UL, Hb 9.7 g/dl, Hct 26,9%, mean corpuscular volume 87,2 fL, platelet 244.000 K/UL, reticulocytes 3,2%.CRP 4,68 mg /dl. Serum blood urea nitrogen 29 mg/dl, creatine 0.92mg/dl, potassium 4.1 mEq/l, aspartate aminotransferase 23 U/l, alanin aminotransferase 15 U/l,total bilurubine 0.2 mg/dl, lactic dehydrogenase 226 U/l, albumin 0,97 g/dl, calcium 7.5 mg/dl, vitamin B12 199 pg/ml, folate 7 ng/ml. Protrombin time, activated partial protrombin time and fibrinogen levels were in normal limits. ANTI- SSA, ANTI Histones ,ANTI Nucleosoms, ANTI ds DNA were positive and C3 and C4 levels were decreased.Anti-cardiolipin antibody-M, anti-cardiolipinantibody-G, ANTI-ENA, ANTI SCL 70, ANTI JO 1 were found negative. Urinanalysis showed abundant erythrocytes and 5-10 leucocytes per high power field and 24 h urinalysis showed 9 g/day of proteinuria. Ultrasonography of abdomen was unremarkable. The patient was given 32mg/day of methlyprednisolon by orally. Fetal heart tones were noted to be 136 bpm with reassuring variability. Uterine contractions were noted every 5 minutes and initial sterile vaginal exam indicated cervical dilation of 2 cm with 30% effacement. The fetus was vertex in presentation with a size consistent for stated gestational age and a normal amniotic fluid index. We

#### 112 Kale et al.

began orally nipedhipine as tocolytic therapy to the patient. Then we consultated the patint with nefrology. After an evalution we decided that the patient is at the acute phase of lupus. Then we stopped tocolytic therapy and took the patient into delivery room. We gave oxytocin induction (10 units in 1000 cc %5 DRL and 0.01 u/min) to her and after 6 hours of delivery she gave a 2400 gr, 44 cm, 6-8 APGAR of fetus.

## Discussion

A woman with SLE who wants to become pregnant faces a number of risks to her health and that of her unborn child. A severe disease flare may be potentially life threatening, while some of the drug therapies are teratogenic and fetotoxic. The risks involved may be minimized by appropriate timing of pregnancy and optimization of therapy prior to conception. After the development in the management and better understanding the mechanism of lupus nephritis, the pregnant women have succesful maternal and fetal outcome.<sup>6</sup> Pregnancy in SLE should be planned and a management strategy should be agreed in full consultation with the patient, prior to conception. Women with SLE frequently need treatment throughout pregnancy. Pregnancies in SLE have high risks of spontaneous abortion, premature delivery, and stillbirth, 7 and also our case had premature delivery. Mok et al, reported that proteinuria is an important factor that causes fetal loss, 8 our case also had proteinuria but she had a succesfully delivery and had a healty baby. In other two of the studies, the predictors for bad maternal and fetal outcomes were, SLE activity at pregnancy onset, severity of maternal renal disease, the presence of hypertension or lupus anticoagulant., 9,10 altough our case had all of these predictors she didnt had bad maternal or fetal outcome. Altough most authorities recommend continuation of immunosupressive theraphy during pregnancy in women with nephritis, it is not clear whether the dosage should be increased peripartum. While SLE is affecting the pregnancy, the pregnancy could worsen the SLE. We think that SLE is not a contraindication for pregnancy but the patients should closer follow up by an obstetrician, pediatrician and nephrologist. And also the patients must be informed about the pregnancy progress in SLE.

### Lupus Nefriti ve Gebelik: Olgu Sunumu

Amacımız gebe lupus nefriti olan olgunun sunulması; 33 yaşında multigravide (gravida :5, parite:4), 34 haftalık intrau-

terine gebeliği olan ve 5 yıldır kontrolsüz SLE hastalığı olan bayan hasta.

Lupus nefriti olan kadınlarda gebelik başarılı olabilir. SLE'de gebelik ve gebelikte takip ve tedavi stratejisi, konsepsiyon öncesinde yapılmalıdır. SLE'li kadınlarda tedavi tüm gebelik boyunca devam etmelidir. En iyi maternal ve fetal sonuçlar için maternal hastalığın gebelik öncesinde, gebelik süresince ve sonrasında sıkı ve iyi kontrol altında olması gerekmektedir.

Anahtar Kelimeler: SLE, Gebelik, Nefrit, Preterm Eylem

#### References

- Mills JA:Systemic Lupus Erythematosus.N Engl J Med 330:1871,1994
- 2. Gordon PA, Beedham T, Khamashta MA et al. Systemic lupus erythematosus in pregnancy. The Obstetrician and Gynaecologist 2004; 6: 80-87.
- Petri M. Hopkins Lupus Pregnancy Center: 1987 to 1996. Rheumatic Diseases Clinics of North America 1997; 23: 1-13.
- 4. Rahman P, Gladman DD & Urowitz MB. Clinical predictors of fetal outcome in systemic lupus erythematosus. The Journal of Rheumatology 1998; 25: 1526-1530.
- Khamashta MA, Ruiz-Irastorza G & Hughes GRV. Systemic lupus erythematosus flares during pregnancy.Rheumatic Diseases Clinics of North America 1997; 23: 15-30.
- 6. Fine LG, Barnett EV, Danovitch GM, et al. Systemic lupus erythematosus in pregnancy. Ann Intern Med 1981;94:667.
- Mok MY, Leung PY, Lao TH et al (2004) Clinical predictors of fetal and maternal outcome in Chinese patients with systemic lupus erythematosus. Ann Rheum Dis 63:1705-1706
- 8. Hayslett JP, Lynn RI. Effect of pregnancy in patients with lupus nephropathy. Kidney Int 1980;18:207-20.
- Jungers P, Dougados M, Pelissier C, Kuttenn F, Tron F,Lesavre Ph, et al. Lupus nephropathy and pregnancy: report of 104 cases in 36 patients. Arch Intern Med 1982; 142:771-6.
- Cunningham FG, Leveno KJ, Bloom SL, Hauth JC, Gilstrap L, Wenstrom KD. Williams Obstetrics. 22<sup>nd</sup> Edition, Copyright 2005, Mc Graw–Hill Companies, 1213