Abstract:
Systemic lupus erythematosus (SLE) is a multisystem, autoimmune, chronic inflammatory disease of unknown etiology with a strong predilection for young women in the reproductive years. The tissues and organs undergo damage mediated by autoantibodies and immune complexes. It is a rare condition occurring in pregnancy with increased fetomaternal complications. Pregnant women with SLE have significantly greater risk of miscarriage, spontaneous abortions, preterm delivery, intrauterine growth retardation, neonatal lupus, stillbirth intratertine fetal death, preeclampsia and eclampsia. The incidence of renal involvement (lupus nephritis) is same as in the non pregnant patients. Renal flares occur in women with active disease at conception. Pregnancy in women with lupus nephritis are always a high risk situation with challenges. Due to all these a good outcome of pregnancy in women with lupus nephritis was a herculean task. But now with the recent advances and modern management the trend has changed with a good outcome. This paper is such a case report of a pregnant woman with lupus nephritis who had good fetal and maternal outcome due to early diagnosis and effective multi disciplinary approach.

Keyword: SLE with pregnancy, Lupus Nephritis (LN) with pregnancy, Maternal outcome, Fetal Outcome

Pregnancy with Lupus Nephritis – A Case report

Introduction: Systemic lupus erythematosus (SLE) is the commonest autoimmune disorder which occurs in the women of childbearing age group. Till the 80's the fetal and maternal risks reported with pregnancy in association with SLE were regarded as unacceptable and women were advised to avoid pregnancy. With improvement in the management of SLE, pregnancy has become comparatively safer, though maternal and fetal complications continue to be higher. The
incidence of renal involvement (lupus nephritis) is same as in the non pregnant patients. The renal flares in lupus nephritis are a single live fetus among the complications which is assorted with adverse pregnancy outcomes. 1, liquor normal, fetal echo normal study. Both the mother and fetus are at risk, can with normal umbilical and uterine artery occur at anytime during pregnancy which Doppler flow. Anti Nuclear Antibody needs aggressive treatment. Case history (ANA) & Anti double stranded DNA (Anti Mrs X 30 year old, unbooked, unimmunized, 2 A1, married since 3 years, with previous live Physician, cardiologist and nephrology history of miscarriage was admitted in the gist opinion obtained. Considering the Department of Dermatology at 5 months history, clinical examination and investi- amenorrhoea (LMP-10.12.10, EDD-17.9.11) gations the diagnosis of SLE along with with skin rash, oral ulcer, photosensitivity significant Lupus nephritis was confirmed and joint pains. She was diagnosed to have in accordance to American Rheumatol- DLE (Discoid lupus erythematosus) pro- ogy Association as she fulfilled 4 of the gressing into SLE (Systemic lupus erythe- 11 criterias prescribed. The patient was matosus) and subsequently referred to De- started on Tab .Aspirin (75mg od), department of Obstetrics and Gynaecology. treated with intravenous Methylprednisolo- On examination the patient was moderately alone20mg/kg/day initially for one week built and nourished anaemic, not icteric, and then followed with oral with bilateral pitting pedal edema. There Tab.Prednisolone (1.5mg/kg/day). Patient were multiple crusted lesions with post in- was regularly followed up in the antenatal inflammatory hyperpigmented macules over out patient weekly. Apart from the routine the malar prominences (in butterfly distribu- obstetric management patient was tion) over the face, multiple crusted plaques monitored with hemogram, platelet count, were also present over the back, anterior urine analysis, renal function tests chest wall, both forearms and foot. Her vitals weekly.

were stable. Examination of all the systems She was continued with T.Aspirin(75mg were normal. Obstetric examination re- od), T.Prednisolone(5mg od) and hema- revealed a single viable fetus of gestational tinics. At 32 weeks of gestation, patient age 20 weeks without any abnormality. The was admitted for vigilant maternal and investigations done were: Hb 7.8 fetal monitoring. Antenatal fetal surveil- gm%, PCV 28%, peripheral smear study re- lance was done with biweekly NST and vealed microcytic, hypochromic anaemia with AFI. On the 37 th week + 1 day, she mild thrombocytopenia, urine analysis re-went in for spontaneous labour. Continu- vealed trace of albumin, sugar nil, RBCs 6 ous electronic fetal monitoring during the -8/HPF, Blood urea 42mg%, serum 1st stage of labour detected fetal distress creatinine 1.4 mg%, Random Bood Sugar which was confirmed by the meconium 94mg%, 24 hour urinary proteins stained liquor on amniotomy. She was 960mg%. LFT, serum electrolytes, urine taken up for emergency LSCS, intraoper- culture & sensitivity, ECG, Echo heart erative steroids (Inj. Hydrocortisone 100mg IV 8th hrly) were given, delivered an alive term, female baby weight of 2.2 kg, Apgar score of 8/10 without obvious
An Initiative of The Tamil Nadu Dr M.G.R. Medical University
University Journal of Surgery and Surgical Specialities

external congenital anomaly. Patient was treated with antibiotics, Inj. Heparin and T. Prednisolone (5mg od) postoperatively. Postpartum period was uneventful, Sutures removed on the 7th postoperative day and patient was discharged. Patient has been regularly followed up and steroids continued. Discussion SLE is a multisystem, autoimmune, chronic inflammatory disease of unknown etiology with a strong predilection for young women in the reproductive years\(^2\). It is characterized by B-cell activation and production of antinuclear autoantibodies which targets body’s own tissues and organs and causes multisystem damage. The contributory factors may be genetic, hormonal, or environmental. Identification of ANA is the best screening test. Anti-ds DNA is highly specific for SLE. LE with pregnancy is rare, the incidence being 1 in 1600. During pregnancy, lupus improves in a third of women, remains unchanged in a third, and worsens in the remaining third \(^3\). Renal flare is more likely to occur in women with active disease at conception \(^4\). Pregnanacies in women with lupus nephritis are always a high-risk situation with challenges, both to the mother and the fetus \(^5\). The fetal loss, IUGR, still birth, pre term birth is higher compared to normal pregnancies \(^6\). The maternal complications of pre eclampsia and hypertension in SLE patients is six fold more compared to the controls. Our patient had significant lupus nephritis (serum creatinine -1.4mg/dl (> 1.2 mg/dl), proteinuria - 0.96gm/24hrs (> 0.5 gms/24 hrs) with RBCS in urine > 5/HPF) alongwith DLE which is a rare situation occurring only in 5% patients. Even though she had mildly elevated renal parameters, she never had hypertension or pre eclampsia. She was diagnosed and treated early with aspirin, prednisolone and heparin later. With all these complications the patient went through an uneventful course and good outcome of pregnancy due to early diagnosis, treatment and regular followup. We infer that management within an experienced multi-disciplinary environment, with informed pre-pregnancy counseling and optimum lupus control, can now facilitate a much improved fetal and maternal outcome. Conclusion Though in previous times, women with lupus nephritis may have been advised against ever contemplating pregnancy, from this case report we infer that early diagnosis and modern management has changed the trend of lupus nephritis in pregnancy with good maternal and fetal outcome.

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