J Obstet Gynecol India Vol. 56, No. 6 : November/December 2006 Pg 532-533

CASE REPORT

The Journal of Obstetrics and Gynecology of India

Pregnancy with SLE and fetal congenital heart block

Bandyopadhyay *Debika*, Singh *Sikha*, Kumari *Ranjana*

Department of Obstetrics and Gynecology of Singh Hospital and Centre for Medical Education. Eastern Railways, Kolkata.

Key words : SLE with pregnancy, fetal congenital heart block, fetal bradycardia

Introduction

Systemic lupus erythematosus (SLE) is a chronic inflammatory disease with multisystem involvement in which the tissues are damaged by autoantibodies and immune complexes. In 90% of cases the disease affects women, the incidence of SLE during the child bearing age being 1in 500. The fetal effects are mainly prematurity, intrauterine growth restriction, neonatal lupus, and in extreme cases stillbirth. Congenital heart blocks result as a consequence of diffuse myocarditis and fibrosis. They tend to be permanent and the long-term outlook of most of the babies still remains gloomy.

Case report

A 30 year old 4thgravida presented at our antenatal clinic with 28 weeks pregnancy complaining of diminished fetal movements for the past 1 week. She was advised immediate admission for observation and necessary investigations. She had a bad obstetric history G4 (P2+1) with no living issue. Her first pregnancy had ended in a normal delivery but the baby died 3 months after birth. This was followed by a spontaneous abortion and another pregnancy ending with an intrauterine fetal death.

She had a history of arthralgia of the small joints of both upper and lower limbs without any history of fever or oral ulcers.

On examination she was of average built and nutrition, mildly anemic without any pedal edema, and normotensive with normal vital parameters. She had malar rash (in butterfly distribution) and her right eye was inflamed (suggestive of conjunctivitis). On abdominal examination the uterus was about 28 weeks size and relaxed. The fetal heart sound however could not be heard with the stethoscope but was located by doppler (CTG machine), its rate being an alarming 76 beats/minute. Fetal movements were felt during examination. Her hemoglobin was 9.5g/dL and peripheral blood smear showed hypochromia with mild anisocytosis. Her blood sugar levels, and kidney and liver function tests were within normal limits. She was VDRL negative. Immunological tests revealed serum ANA index-2 positive, Anti-ds DNA 45IU/mL, and SS-A (La) antibodies and SS-B (Ro) antibodies strongly positive. Her anticardiolipin antibody (IgG) was 18GPL/L, ACA (IgM) 16MPL/L, and APTT 31seconds (control 27seconds). Ultrasound examination on admission showed a single live fetus of 26weeks maturity, average liquor volume, and fetal heart rate of 72beats/minutes (Figure 1). Fetal echocardiography showed no apparent structural defect,the fetal heart rate being 68-70 beats/minute suggestive of congenital heart block. Maternal

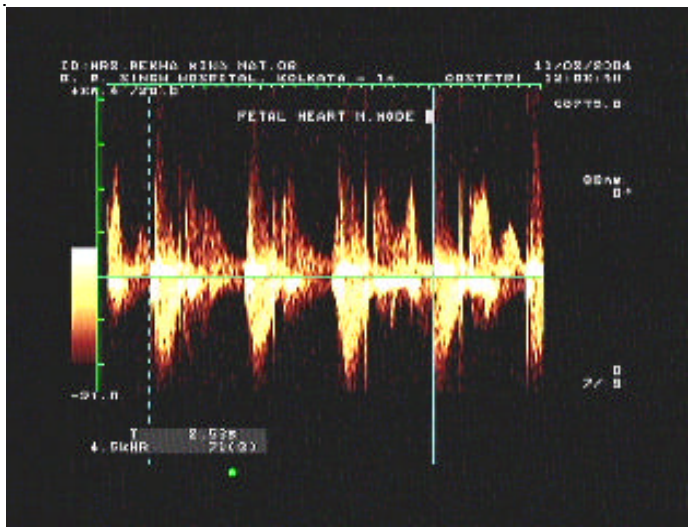

Figure 1 : Doppler showing fetal bradycardia.

Paper received on 29/09/2004 ; accepted on 15/01/2005

Correspondence :
Dr. Debika Bandyopadhyay
AE264 Salt Lake City
Kolkata 700064, West Bengal

echocardiography findings were within normal limits. Her history, clinical findings and investigations were suggestive of SLE and since in accordance to the American Rheumatism Association she had 4 of the 11 criteria present she was diagnosed as a case of SLE with pregnancy.

She and her husband were counseled regarding the prognosis of the fetus. She was put on medication with low dose aspirin (75mg once a day), prednisolone (40mg/day), and iron, calcium and vitamin supplementation. Regular cardiotocography tracings and serial ultrasound scans at intervals were conducted to assess fetal maturity. The fetal heart rate always revealed bradycardia. Elective lower segment cesarean section was performed when the fetus reached 36 weeks maturity and a live female baby weighing 2.34 kg was born.The baby was immediately transferred to the neonatal intensive care unit. Her postoperative period was uneventful. Steroids were continued during the puerperal period in gradually tapering doses. She was discharged after 2 weeks with a healthy baby.

Discussion

SLE with pregnancy is rare, the incidence being 1 in 1600.The disease remains stable in about 30% but pregnancy at times may cause flare ups [1]. Identification of ANA is the best screening test. Anti-ds DNA is highly specific for SLE.To ensure favorable outcome for both mother and fetus pregnancy should be planned during a period of disease stability and should be closely monitored. Presence of SS-A (Ro) antibodies and SS-B (Ro) antibodies is associated with increased incidence of congenital heart block. Congenital heart block without associated cardiac malformation carries a more favorable outlook [2]. As in this case, a fetus with isolated heart block usually does not develop heart failure and in most of the instances is born alive. Information on prenatal progression of the cardiac anomaly is important to plan perinatal management, as early pacemaker insertion may be required in some newborns [3,4].

References

1. Kiss E, Bhattoa HP, Ballogh A et al. Pregnancy in women with SLE. *Eur J Obstet Gynaecol Reprod Biol 2002;101:129-34.*
2. Truccone NJ, Marione FG. Prenatal diagnosis and outcome of congenital complete heart block; the role of fetal echo. *Fetal Ther 1986;1:210-6.*
3. MaenoY, Hinreno W, Fujino et al. Progression of congenital heart disease in the perinatal period. *Pediat Int 1999;41:709-15.*
4. Finkelstein Y, Adler Y, Harel L et al. AntiRo (SSA), AntiLo (SSB) antibodies and complete congenital heart block. *Ann Med Interne (Paris) 1997;148:205-8.*