SYSTEMIC LUPUS ERYTHEMATOSUS COMPLICATING PREGNANCY

(A Case Report)

by

COLLEEN SRINIVASAN,* M.S., D.G.O.
RADHA BAI PRABHU,** M.D., D.G.O.
and
JOHN SRINIVASAN,*** M.B.,B.S.

Introduction

Systemic Lupus Erythematosus is a protean disease of unknown cause. It shows a predeliction for young females and is thus encountered during pregnancy. Renal involvement occurs in two-thirds of patients and may be indistinguishable from Pre-eclampsia unless a renal biopsy has proved otherwise. Clinical manifestations are so varied that it has been referred to as the great imitator. The acute disease may be fatal within weeks, but the subacute form has unpredictable remissions and exacerbations. This case has been presented for its rarity.

Case History:

Kalaiselvi aged 27 years a primigravida coming from socio-economic class II, was admitted in Government RSRM Lying-in Hospital, Madras on 8-1-82 with history of 5 months amenorrhoea and edema both legs of 2 months duration.

She attained menarche at the 12th year. She was married for 1½ years and her periods were regular. Her LMP was on 25th August 1981 and her due date was 2nd June 1982.

There was no history of diabetes or hypertension in the family. Patient had similar edema legs in 1977 for 6 months, accompanied by oliguria. There was no history of haematuria or dysuria. She did not give history of fever, sorethroat or scabies.

At this stage she consulted a nephrologist and the following investigations were done.

B.P. — 130/100 mm of Hg.
Urine — Albumin +++
R.B.C. — 15-20/HPF
Epithelial cells — 4-5/HPF
Specific gravity — 1010
W.B.C. — 6,800, DC—P30 L68 E2
E.S.R. — ½ hr. 10 mm
1 hr. 25 mm
Urine Protein — 3.7 gm. per day
Creatinine 1.12 gm. per day
Creatinine clearance — 72 ml./mt.
Blood Urea — 20 mg.%
Creatinine — 1 mg.%
Cholesterol — 210 mg.%
Lupus erythematous cells — Negative
Renal biopsy — Membranous glomerulonephritis due to systemic lupus erythematosus.

Patient was put on tablet deltacortil for 6 months and she was relieved of her symptoms.

In 1979, patient developed leucoderma over the lips and fingers and was treated by a dermatologist.

On admission to our hospital patient was grossly edematous, very pale with leucodermal patches over the lips. BP was 130/100 mm of Hg. and uterus was 22 weeks size. Throughout the antenatal period BP was ranging from

*Professor of Obstetrics and Gynaecology, Stanley Medical College, and Superintendent, Govt. RSRM Lying-in Hospital, Madras-13.
**Tutor in Obstetrics and Gynaecology, Govt. RSRM Lying-in Hospital, Madras-13.
***Compulsory Rotatory Resident Internees, Govt. General Hospital, Madras-13.
Received for publication on 19-11-82.

120/80 to 150/110 mm of H.g. CVS, RS normal. and uterus was growing corresponding to period of gestation. During the antenatal period, patient was hospitalised twice and discharged.

Investigation:

Urine ALB		+++
Few epithelial Cells		+
No growth in culture		
Specific gravity		1006
Hb	—	8 gm.%
PCV	—	17%
TC	—	10,800
DC	—	P61 L34 E5
Blood Urea	—	15 mg.%
Sugar	—	85 mg.%
Cholesterol	—	325 mg.%
Uric acid	—	5 mg.%
Creatinine	—	1 mg.%

She was referred to the nephrologist at regular intervals. No specific treatment was given for the renal condition. She received one unit of compatible blood for the correction of anaemia.

On 25-5-82 patient got into labour spontaneously and labour was accelerated with syntocinon drip. On 26-5-82 after forceps patient delivered an alive mildly asphyxiated male baby weighing 2.6 Kg., and baby was resuscitated easily. Patient had mild PPH and was treated.

In the puerperium, patient was very pale, BP 130/80. Patient was again given a unit of blood and antibiotics. Mother and baby discharged well on 12-6-82.

Discussion

Systemic Lupus erythematosus is a protean disease of unknown cause, although circulating antibodies to DNA have a prominent role in its manifestations. Almost any organ or system may be involved. Pollak and Pirani (1969) stated that renal involvement has been found in 75-90% of patients coming to autopsy. The renal symptoms may be accompanied by joint pains, purpura, Raynaud's phenomenon and inflammation of serous membranes especially pleura and pericardium. The acute disease may be fatal within weeks and the subacute form has unpredictable remissions and exacerbations. 90% of its victims are girls and women and the onset of the disease in between the ages of 10 and 39 in three fourth of the cases. (Dubois 1966).

Chesley has analysed 630 pregnancies published by various authors. The fetal salvage was only 64%. Spontaneous abortion occurred in 20% and of the pregnancies carried to viability 8% were stillbirths. The incidence of premature deliveries was considerably increased in nearly every series reported. Masdon and Anderson (1961) have shown that even after the adveent of corticosteroid therapy the pregnancies resulted in 24% abortions and 37% premature deliveries. When the infants are born alive, they are not affected by the maternal disease even though the lupus erythematous factor is transmitted across the placenta. But Klippel *et al* (1974) reported transient haemolytic anaemia, leucopenia, thrombocytopenic anaemia in newborn as a result of transplacental passage of antibodies. The fetus also runs the risk of cardiac involvement including complete heart block.

The effect of pregnancy upon the course of disease is controversial. Dubois (1966) who has contributed by far the largest series reported that pregnancy has by far no adverse effect unless there is cardiac or renal involvement. When the kidneys are severely affected, the prognosis for both mother and prognosis child is grave. Termination of pregnancy is the wisest procedure.

In general, women in remission at the beginning of pregnancy remained in remission throughout the pregnancy and the puerperium. Since the course of the disease is more favourable when pregnancy occurred during a period of clinical remission, women are best advised to

await such remission before attempting to become pregnant.

Pollak and Pirani (1966) reported that prednisone in doses of 50 mg./day for 6 months, sometimes clears up lupus glomerulonephritis in non-pregnant patients.

Kincaid-Smith (1975) uses Azathioprine, dipyridamole and heparin. Intrauterine exposure to immunosupressive drugs remains an inadequately studied potential risk to SLE offspring. Transplacental passage of Azathioprine or its active derivative 6-mercaptopurine could result in direct fetal toxicity.

Since a fall in maternal serum C3 and C4 complement levels may herald the onsent of symptoms and may provide a guide to therapy, assay of serum complement levels remains a valid monitoring device in the management of these patients during pregnancy. Rising antinuclear factor (ANID and A-DNA) along with lowered or decling complement levels are associated with clinically active lupus.

On clinical grounds it may be difficult to differentiate toxaemia of pregnancy and systemic lupus erythematosus, and only a renal biopsy will reveal the diagnosis. Pollak and Pirani (1966) divided the renal lesions into 2 groups.

1. Lupus glomerulitis in which mild local and focal membranous and proliferative changes are found in some capillaries of some glomeruli.

2. Lupus glomerulonephritis in which more severe and wide spread changes in the glomeruli are associated with abnormalities in renal tubules.

Kincaid-Smith (1973) has reported that the prognosis for mother and fetus is better in treated lupus glomerulonephritis than in any other form of nephritis.

Summary

SLE is a collagen diseas and shares the common denominator of an autoimmune response with other disorders of the connective tissue.

SLE is a protean disease of unknown cause. It has a prediliction for young females and is thus encountered during pregnancy. Renal involvement occurs in 2/3 of patients and may be indistiguishable from PET unless a Renal biopsy has proved otherwise. The acute disease may be fatal within weeks, but the sub-acute form has unpredictable remissions and exacerbations. This case has been presented for its rarity.

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