Case report of new-onset systemic lupus erythematosus during pregnancy

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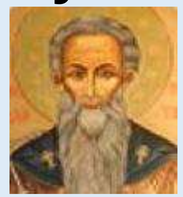

INTRODUCTION

Systemic lupus erythematosus (SLE) is a chronic, autoimmune disease that affects mainly young women in childbearing age. Pregnancy in women with SLE is associated with an increased risk of adverse maternal and fetal outcomes, causing further complications and ultimately leading to impaired quality of life.[1]

METHOD

Our aim is to describe a new-onset SLE during pregnancy with a severe multisystem involvement.

CASE PRESENTATION:

A-30-year old primagravida at 20 weeks of gestational age was admitted to the Rheumatology Clinic for a diagnostic verification. The patient had a history of pain and stiffness in phalangeal and knee joints a few months prior to pregnancy. Routine screening at week 17 showed anaemia (Hb 82g/l, RBC 2,62x10^12/l), lymphopenia (0,64x10^9/l); urine analysis showed hematuria and proteinuria. Gradually, the hemoglobin decreased to **57 g/l**. Further testing esthablished positive direct and indirect Coombs' tests. Later the patient presented to the emergency department complaining of dizziness and shortness of breath. Bilateral pleural effusions were present (250 ml). Further she developed a nephrotic syndrome with lower extremity edema, hypoalbuminemia and a severe daily protein loss of **6,66g/24h**, requiring human albumin infusions and diuretic therapy. Obstetric evaluation of the fetus remained normal for the gestation throughout the period. Initial laboratory findings on admission to the Rheumatology Clinic are shown in Table 1 and 2, respectively. Ultrasound of the abdomen showed the presence of ascites.

The patient received intravenous pulses with Methylprednisolone (MP) 250mg for 3 days, followed by MP 60 mg/daily combined with Hydroxychloroquine 200mg/daily and intravenous immunoglobulin 400mg/kg, as well as human albumin i.v. and Nadroparin 0.6 s.c.

The presence of arthralgia, serositis, nephritis, anaemia, lymphopenia, positive Coombs` tests, positive ANA, anti-ds DNA, anti-Sm, low complement levels suggested

a diagnosis of an active new-onset SLE

according to criteria proposed by the American College of Rheumatology.

After counselling with a multidisciplinary team

(consisting of rheumatologists, hematologists, nephrologists, obstetricians)

regarding severity of maternal disease (sign of severe lupus nephritis), poor prognosis and the need for cytotoxic agents therapy,

a medically indicated abortion

was proposed to the patient and the pregnancy was interrupted in week 22 with no complication during the procedure and postpartum.

RESULTS

Table 1: Laboratory parametres:

Variables	Results	Reference range
ERS Erythrocyte sedimentation rate	60 mm/h	< 30
C-reactive protein	4 mg/l	< 6
Hemoglobin	107 g/l	120 – 160
Hematocrit	0.309	0.360 - 0.480
Erythrocytes	3.52 x 10^12/l	3.70 - 5.30
Leucocytes	7.66 x 10^9/l	3.50 - 10.50
Thrombocytes	232 x 10^9/l	130 - 360
Total protein	55.80 g/l	64.00 - 83.00
Albumin	31.8 g/l	35 - 55
Creatinine	85 µmol/l	< 96
Total Cholesterol	5.69 mmol/l	< 5.2
Proteinuria	5.4 g/24h	< 0.15
Microalbuminuria	7497.57 mg/L	< 20

Table 2: Immunological laboratory parametres:

Variables	Results	Reference range
ANA testing by IFA	> 1:1280	< 1:160
Anti-ds DNA by ELISA	172.5 IU/ml	< 25
C3	0.611 g/l	0.75 - 1.65
C4	0.109 g/l	0.20 - 0.65
Immunoblotting:		11-50 positive, >50 highly positive
Anti-nRNP/Sm	26	
Anti-Sm	36	
Anti-ds DNA	24	
Anti-cardiolipin	3.6 U/ml	< 10
Anti-β2-Glygoprotein	21.9 U/ml	< 10
Direct Coombs test	Positive	Negative
Indirect Coombs test	Positive	Negative

CONSLUSION

The case shows extreme manifestations of lupus disease activity in pregnancy and emphasizes the importance of multidisciplinary approach in the management of these patients.

References:

1. EULAR recommendations for women's health and the management of family planning, assisted reproduction, pregnancy and menopause in patients with systemic lupus erythematosus and/or antiphospholipid syndrome Andreoli L, Bertsias GK, Agmon-Levin N, et al. Ann Rheum Dis 2017;**76:476–485.**