Biomedical Research 2018; 29 (5): 1018-1023

ISSN 0970-938X
www.biomedres.info

Pregnancy management in prognosis for pregnant patients with systemic lupus erythematosus.

En-Ling Liu[1], Zheng Liu[2], Bao-Feng Han[3], Hong-Xiu Ma[3], Shuai-Shuai Li[3], Yu-Xiu Zhou[3*]

[1]Department of Obstetrics and Gynaecology, Tangshan Gongren Hospital, Hebei Medical University, Tangshan 063000, P.R. China

[2]Rheumatism Immunity Branch, Tianjin Medical University General Hospital, Tianjin 300000, P.R. China

[3]Rheumatism Immunity Branch, Tangshan Gongren Hospital, Hebei Medical University, Tangshan 063000, P.R. China

Abstract

Objective: To study the effects of pregnancy management in prognosis for pregnant patients with systemic lupus erythematosus (SLE).

Methods: 217 pregnant patients who were diagnosed with SLE were divided into two groups, the control group and the intervention group. The intervention group was treated with routine treatment and nursing with additional pregnancy management, while the control group was treated with only routine treatment and nursing. Additionally, 195 normal pregnant women in the same period were selected as the healthy control. Regular laboratory tests were conducted for all subjects. Statistical analysis on changes of related disease indexes in each group was also performed. All information of maternal and neonatal outcomes was collected to record SLE activity rate, incidence of pregnancy induced hypertension (PIH), premature and fetal loss, neonatal weight and incidence of neonatal complications.

Results: Increased ANA titer and dsDNA, lower immunoglobulin complement, renal damage, blood system damage, increased SLEDAI score and SLICC score were observed in the control group and the invention group compared with the healthy control. Both the control group and the intervention group showed significant increase in the incidences of PIH, premature delivery, fetal loss and neonatal complications as well as significant decrease in neonatal weight compared with the healthy control. SLE activity rate and incidences of PIH, premature delivery and neonatal complications were significantly decreased while neonatal weight was greatly increased in the intervention group compared with the control group. Results of logistic analysis showed that low immunoglobulin complement, renal damage, increased dsDNA, increased dsDNA and low immunoglobulin complement were independent risk factors for increased SLE activity rate, fetal loss, premature delivery and neonatal complications, respectively.

Conclusion: The present study indicates that pregnancy management for pregnant SLE patients can significantly improve maternal and neonatal outcomes.

Keywords: Systemic lupus erythematosus, Pregnancy management, Maternal and neonatal outcome, Autoantibody to nuclear antigen, Low immunoglobulin complement.

Accepted on December 04, 2017

Introduction

Systemic lupus erythematosus (SLE) is a serious multi-system disease affecting various organs, predominantly in women of childbearing age (female: male ratio approximately 9:1) [1,2]. Generally, SLE is believed to have a correlation with heredity, and the environmental factors particularly include ultraviolet light exposure and oestrogen level [3]. The high oestrogen level is a major cause of SLE activity, since the rising oestrogen level enhances the prolactin level which results in increasing immune response even disorder, and at the same time, pregnancy will aggravate the burden on damaged heart and kidney so as to induce SLE activity [4]. Pregnancy with SLE is considered as a kind of high risk pregnancy, because SLE activity will be increased during pregnancy which causes vital organs damage and subsequently affects foetus of patients [5]. Moreover, the recurrence rate of SLE during pregnancy reached 13% to 68%, which may lead to spontaneous abortion, premature birth, stillbirth, intrauterine growth retardation, premature rupture of membrane and neonatal lupus erythematosus [1].

Currently, the treatment of SLE is mainly based on cortical hormone, and the unceasing enhancement of medical technology level helps the continuous progress in drug therapy and stem cell transplantation, so more and more SLE patients