



Role of antiphospholipid antibody in early pregnancy loss

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ABSTRACT

Antiphospholipid antibodies are a group of autoantibodies that bind to negatively charged phospholipids. These antibodies have been associated with thrombotic events which lead to pregnancy loss. A study was conducted in the Department of obstetrics & gynecology, MLB medical college, Jhansi, to detect and establish a correlation between antiphospholipid antibodies in early pregnancy losses. **MATERIAL & METHOD-** the study included 70 patients between 16-35 years of age. 45 patients were having history of 2 or more spontaneous abortion and 25 patients were having normal obstetrical history. Anticardiolipin antibodies were measured by ELISA method. Both IgG and IgM types of aCL were measured. **RESULTS-** 3/45 patients were found to be positive for antiphospholipid antibody in group having 3 or more abortions while 0/25 were positive in group having normal obstetric history. **CONCLUSION-** We concluded that antiphospholipid antibody have association with recurrent abortion (7%) especially during first trimester.

KEYWORDS :

INTRODUCTION

Antiphospholipid antibodies are a group of autoantibodies that bind to negatively charged phospholipids. These antibodies have been associated with thrombotic events which could lead to pregnancy loss. In 1987 Dr. Hughes described that this syndrome is mainly of 2 types.

1. **Primary APS:** APS with out any clinically overt symptom of SLE or antinuclear antibody positive.
2. **Secondary APS:** APS associated with SLE and / with antinuclear antibody

AIMS AND OBJECTIVES

- To detect and establish a correlation between antiphospholipid antibodies in early pregnancy losses.

MATERIAL AND METHODS

This study was carried out in the Department of Obstetrics & Gynaecology, MLB Medical College, Jhansi. Patients were selected from the outpatient department and ward of Department of Obstetrics & Gynaecology of MLB Medical College, Jhansi.

Sample size – Total 70 patients were taken to conduct this study. 45 patients were having history of 2 or more spontaneous abortion and 25 patients were having normal obstetrical history.

INVESTIGATIONS

- "Test for Anticardiolipin Antibodies"
- Anticardiolipin antibodies were measured by ELISA method. Both IgG and IgM types of aCL were assayed

GROUP	No. of patients	Positive patients	percentage
study	45	3	6.67
control	25	0	0.00

Table 1-In this study 70 patients included. Most of patients in study group (group I) were having negative result for antiphospholipid antibodies test, only 3 patients i.e. 6.67% are positive while in group II none of patients were positive.

investigation	No. Of positive patients(n=45)	percentage
LAC	1	2.22
IgG anticardiolipin	2	4.45
IgM anticardiolipin	0	0.00
IgG & IgM both	0	0.00

Table2- Distribution of cases according to investigation report in group I. Out of the 3 positive patients of antiphospholipid antibodies, 1 patients was positive for LAC i.e. 2.22% and 2 patients were positive of IgG anticardiolipin i.e. 4.45%.

In this study our aim was to find out the correlation between antiphospholipid antibodies in early pregnancy losses.

The patients included in this study were between age group 16-35 years. With a mean age of study of 25.59 years. Out of 70 patients who entered study 42.85% of the patients were in the age group of 20-30 years. Patients in Group I & Group II were subjected to antiphospholipid antibody investigation. In Group I 6.67% patients 3/45 patients were positive while in group & none of the patients were positive.

In this study in group 1, 1 patient was positive for lupus anticoagulant antibody - 2.22% & 2 patients were positive for IgG anticardiolipin antibody - 4.45%.

None of the patients were found positive for IgM anticardiolipin antibody & for both anti cardiolipin antibody and lupus anticoagulant antibody.

CONCLUSION

We can conclude that antiphospholipid antibody do have association with recurrent abortion (7%) especially during the 1st trimester. This study is comparable to studies conducted by Cauto et al (2005) study having 13.6% positivity for antiphospholipid antibodies and Kumar et al study having 10.28% positivity for antiphospholipid antibodies. The present study has limitations. The major limitation being small size.

REFERENCES

1. Ogasawara M, Aoki K, Kajiura S, Yagami Y. Are antinuclear antibodies predictive of recurrent miscarriage? *Lancet* 1996;347:1183-4.
2. Birkenfeld A, Mukaida T, Minichiello L, Jackson M, Kase NG, Yemini M. Incidence of autoimmune antibodies in failed embryo transfer cycles. *Am J Repro Immunol* 1994;31:65-8
3. Lockshin MD, Druzin ML, Goei S, Qamar T, Magio M, Fevence M. Antibody to cardiolipin as a predictable of fetal distress or death in pregnancy patients with systemic lupus erythematus. *N Engl J Med* 1985;313:152-6.
4. Kumar KS, Jyothy A, Prakash MS, Rani HS, Reddy PP. Beta 2glycoprotein I dependent anti cardiolipin antibodies and lupus anticoagulant in patients with recurrent pregnancy loss. *J Postgrad Med* 2002;48:5-10.