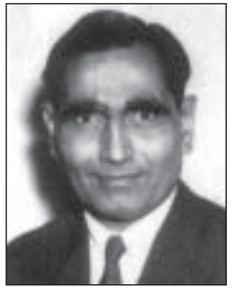
Indian Journal of Medical Sciences

ISSN 0019-5359



***Late* Dr. J. C. Patel**
Founder Editor
Editor (1947-2003)

Correspondence:
Dr. D. K. Sahu
A-109, Kanara Business Center, Off Link Road, Ghatkopar (E), Mumbai - 400075, India.
Tel: 22-66491818/1816
Fax: 22-66491817
E-mail: ijms@medknow.com

Dr. B. C. Mehta
Flat No. 504, Prachi Society, Juhu-Versova Link Road, Andheri (W), Mumbai 400 053

Manuscript submission:
http://journalonweb.com

Free full text at:
www.indianjmedsci.org
www.bioline.org.br/ms

Indian Journal of Medical Sciences is a monthly journal published as a medium for the advancement of scientific knowledge in all the branches of Medicine and allied Sciences and publication of scientific investigation in these fields. It is also indented to present this as a form suitable to the general practitioner and primary care physician.

The journal is owned by the **Indian Journal of Medical Sciences Trust**, a registered charitable organisation and published by Medknow Publications, Mumbai, India.

The journal is **indexed/listed** with Index Medicus (Indian J Med Sci), MEDLINE, PubMed, EMBASE, CAB Abstracts, Global Health, Health and Wellness Research Center, Health Reference Center Academic, InfoTrac One File, Expanded Academic ASAP, Journal Articles Database (JADE), Indian Science Abstracts and PubList.

INDIAN JOURNAL OF MEDICAL SCIENCES

VOLUME 61
NUMBER 12
DECEMBER 2007

Published by
Medknow Publications
A-109, Kanara Business Center, Off Link Road, Ghatkopar (E), Mumbai - 400075, India

Indian J Med Sci, Vol. 61, No. 12, December 2007

LETTERS TO EDITOR

SIGNIFICANCE OF ANTIPHOSPHOLIPID ANTIBODIES IN PATIENTS WITH BAD OBSTETRIC HISTORY

Sir,

Antiphospholipid antibody syndrome (APAS) is an autoimmune condition that may manifest with fetal loss, thrombosis or autoimmune thrombocytopenia. We share here our experience on prevalence of two clinically most relevant antiphospholipid antibodies (APL) – anticardiolipin antibodies (ACL) and lupus anticoagulants (LA) – and the response to treatment with low-dose Aspirin in 120 patients with bad obstetric history. Inclusion criteria for patients were history of three or more spontaneous abortions or/ and two or more stillbirths with a normal embryonic ultrasound at 6-8 weeks of gestation and negative TORCH serology. Controls comprised of 60 healthy women with at least one successful pregnancy and without previous history of abortion- or pregnancy-associated complications. Sample collection and testing was done, as described by Kumar *et al.*,[1] after 12 weeks of miscarriage/ stillbirth in nonpregnant state. Statistical analysis of accrued data was done using EpiInfo 6 software. Probability '*P*' values were calculated using chi-square test.

Our results showed that 34/120 (28.3%) and 9/60 (15%) patients tested positive for ACL and LA respectively, which includes three samples that were positive for both as per Brandt's criteria.[2] Clinical and laboratory profile of patients is shown in Table 1. The titer of ACL was higher than 80 GPL units / liter (L) in two patients only. Increasing age and higher number of conceptions were observed to be more frequently associated with APL. Three controls had ACL of IgG isotype in the range 10-14 GPL units/L, but none tested positive for LA. Statistically both LA (P = 0.0014) and ACL (P = 0.0005) were found to be significantly related to bad obstetrical outcome. During the study period 55% of the women, who were put on aspirin therapy (75 mg/day), conceived and had uneventful delivery.

APAS has emerged as the most important treatable cause of recurrent miscarriage, early onset preeclampsia and of intrauterine growth restriction. Table 2 shows a comparison of this study with some others in contemporary Indian literature. Silver *et al*. found women with IgG A CL >80 GPL/L had 40% fetal death, while women with IgG ACL <40 GPL/L had less than 20% fetal wastage.[3] In our study, ACL positivity was present in three controls (5%); only two patient samples had titers exceeding 80 GPL units/L. In a study by Srikrishna *et al*. on 72 patients with obstetric complications with high titer (> 80 GPL units/L) in none of the patients.[5] Possibly, majority of Indian population with BOH (bad obstetric history) do not produce high titers of ACL. Usually low titers of IgM and IgG ACL are not associated with poor fetal outcome, and there is a legitimate argument for closely monitoring but not arbitrarily treating women with low ACL titers. There is a requirement for studying baseline levels of ACL in Indian population, and more studies are needed in women with BOH with APAS to account for geographical and genetic variations for determining significant levels and deciding whom to treat.

Table 1: Shows clinical and laboratory findings in patients with bad obstetric history

Clinical presentation/ laboratory tests	*Number of cases*
Recurrent abortions	80
Stillbirths	30
Both	10
Age range and (Mean)	21- 38 (26) years
Conceptions range and (Mean)	2-8 (5)
Anticardiolipin antibodies	34
Immunoglobulin G	28
10-40 GPL units/L	31
> 40 GPL units/L	3
Immunoglobulin M	6
Both	4
Lupus anticoagulants	9
ACL + LA	3
Thrombocytopenia	8

ACL - Anticardiolipin antibodies; LA - Lupus anticoagulants

Table 2: A comparison of contemporary Indian studies in literature

Authors	*Numbers controls (C) and patients (P)*	*ACL*	*LA*	*Both*	*Special features*
Kumar *et al.*,[2]	Recurrent abortions and controls; 107 each	33/82 (40.2)	11(10.3)	2	Nil
Velayuthaprabhu *et al.*,[4]	Recurrent abortions 155; no controls	62 (45)	Not included		Studied APS antibodies
Srikrishna *et al.*,[5]	Recurrent abortions 72; no controls	10 (21)	2 (4.2)		Cases of SLE and thrombosis
Kaneria *et al.*,[6]	50	14 (28)	6 (12)	3	Cases of BOH
Present study	Recurrent abortions and still births 120 and controls 60	34 (28.3)	9/60	3/120 (15)	(2.5)

ACL – anticardiolipin antibodies; LA – lupus anticoagulants; BOH – bad obstetric history; APS – antiphosphatidylserine antibodies; SLE – systemic lupus erythematosus, Figures in the parentheses are in percentage

ACKNOWLEDGMENT

Dr. (Mrs.) Vani Suryam for statistical analysis of the data.

M. N. MISHRA, SAPNA GUPTA, M. K. GUPTA[1]
Department of Pathology, INHS Asvini, Colaba, Mumbai, [1]Department of Pathology, Bombay Hospital, New Marine Lines, Mumbai, India

Correspondence:
Dr. Mahendra Narain Mishra, Hospital Laboratory, 166 Military Hospital, C/O56 APO, India.
E-mail: mnmishra@hotmail.com

REFERENCES

1. Kumar KS, Jyothy A, Prakash MS, Rani HS, Reddy PP. Beta2-glycoprotein I dependent anticardiolipin antibodies and lupus anticoagulant in patients with recurrent pregnancy loss. J Postgrad Med 2002;48:5-10.
2. Brandt JT, Triplett DA, Alving B, Scharrer I. Criteria for the diagnosis of lupus anticoagulants: An update: On behalf of the Subcommittee on Lupus Anticoagulant/Antiphospholipid Antibody of the Scientific and Standardisation Committee of the ISTH. Thromb Haemost 1995;74:1185-90.
3. Silver RM, Porter TF, van Leeuween I, Jeng G, Scott JR, Branch DW. Anticardiolipin antibodies: Clinical consequences of "low titers". Obstet Gynaecol 1996;87:494-500.
4. Velayuthaprabhu S, Archunan G. Evaluation of anticardiolipin antibodies and antiphosphatidylserine antibodies in women with recurrent abortion. Indian J Med Sci 2005;59:347-52.
5. Srikrishna A, Sitalakshmi S, Devi S, Damodar P. Antiphospholipid antibodies-our experience. Indian J Pathol Microbiol 2004;47:174-7.
6. Kaneria MV, Vishwanathan C. A preliminary study of antiphospholipid antibodies in 50 cases of bad obstetric history. J Assoc Physicians India 1999;47:665-7.