

PRE ECLAMPSIA REMOTE FROM TERM AND A.P.A. SYNDROME : EXAMINING THE ASSOCIATION

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SUMMARY

Fifty-two patients who had preeclampsia remote from term were investigated for Antiphospholipid Antibodies (APA); 53.3% tested positive for APA. 50% of these were moderately positive. There was a significant association between preeclampsia of early onset now and recurrent missed abortions as well as fetal death in the past. There was also a statistically significant association between pre-eclampsia of early onset now and history of pre-eclampsia of early onset in the past.

INTRODUCTION

Pre-eclampsia remote from term (onset before 28 weeks of gestation) behaves in many ways distinct from the late onset pre-eclampsia. This has been already documented by us (Desai et al 1988; and Desai et al, 1994). It has also been separately studied by other workers (Purwar et al 1993). This

form of pre-eclampsia has been found to be associated significantly more often with complications like IUGR, accidental hemorrhage and IUFD. They have also got a higher chance of developing hypertension in subsequent pregnancy.

Christensen et al (1993) and Lockwood et al (1987) have shown an association of APA with IUGR & IUFD. The basic pathology in all these conditions was found to be vasculopathy. In 1989,

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Branch et al 1989 showed a strong association of pre-eclampsia remote from term with A.P.A. Syndrome. We decided to include A.P.A. testing in preeclampsia cases and present our results here.

MATERIAL & METHODS :

This study was carried out in Unit III of the Dept. of obst. & Gynec., Medical College and S.S.G. Hospital Baroda. Over a period of 6 years from Jan. 1991 to Dec., 1996. Cases of pre-eclampsia of onset at or before 28 completed weeks of gestation were included in this study. These cases were subjected to A.P.A. testing by standard ELIZA technique. They were grouped as negative, low positive, moderately positive or strong positive as per their titers as shown in Table I.

Association of positive cases to past history of pre-eclampsia of early onset, recurrent spontaneous missed abortions and intrauterine fetal death was also studied in these cases. Results so obtained were computerized

and statistically analyzed using SPSS software. On the basis of this, valid conclusions were drawn in the light of current literature.

RESULTS

In all we tested for APA 52 cases who had preeclampsia of early onset. Of these 52, 28 (53.3%) tested positive as shown in Table II.

As shown in Table I, maximum number were moderately positive cases.

Interesting results emerge from Table III. As shown herein, significant number of subjects who now had preeclampsia of early onset, had a similar history in past. At D.F.1, Chi-square value was 4.9231 with $P < 0.01$.

Similarly, there was significant association between preeclampsia of early onset now and past history of recurrent spontaneous missed abortions. On application of Chi-square test the value was 2.7692 at D.F. 1 with P value being less than 0.01.

Also, on analyzing the association of this condition with past history

**TABLE I
GROUPS OF APA TITERS**

GROUP	TITER RANGE IN GPL UNITS
Negative	<5
Low positive	< 5-20
Moderate Positive	20 - 100
Strong positive	> 100

Table II
DISTRIBUTION OF CASES AS PER THE TITERS

TITER	No.	%
* Negative	24	46.0
* Positive :	28	53.3
Low positive	05	17.9
Mod. Positive	14	50.0
Strong positive	09	32.1
Total	52	

Table III
CONTRIBUTORY HISTORY

PAST HISTORY OF	No.	%	Statistical association with present condition
P.E. of early onset.	18	34.3	Significant
RSA of missed abortion type	19	38.5	Significant
IUFD	12	23.1	Significant

All statistical association calculated by Chi-square test.

of intra-uterine fetal death, a significant association was found, at D.F. 1, Chi-square value being 15.0769 with $P < 0.001$.

This proved the strong interlink between all these conditions with A.P.A. syndrome with the basic pathology of all of them being vascular in origin.

DISCUSSION

Pre-eclampsia of early onset is a distinct entity. It has its unique

behavioral pattern, stormy course and devastating complications. This has been well studied by many workers. Many of its complications like fetal death, IUGR, renal failure, accidental hemorrhage and the like have a strong vascular basis. A similar picture emerges with A.P.A. syndrome, its resultant vasculopathy and complications being very similar to pre-eclampsia of early onset. It is therefore a matter of logical inquisitiveness as to whether any association exists between the two.

Branch et al (1989) demonstrated such an association. In the present study, 53.3% subjects who had pre-eclampsia of early onset, tested positive for antiphospholipid antibodies. Amongst these, 50% were moderately positive.

Association between APA syndrome, pre-eclampsia of early onset and complications like IUGR and IUFD have also been demonstrated by other workers like Scott et al (1987) and Lockshin et al (1985). More recently it has also been reported by Rai et al (1996). In the present study also, a significant association was found between fetal death and pre eclampsia of early onset.

APA resulting in vasculopathy and thereby leading to all these complications have been documented by Walsh et al

(1985) and more recently by Rai et al (1996). This leading to recurrent missed abortions has been shown by Gregorini et al (1981). A significant association has been found in the present study between pre-eclampsia of early onset and past history of recurrent spontaneous missed abortions.

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REFERENCE

- 1) Branch W. D., Andres R., Digre K B : *Obstet. & Gynec.* : 73; 4, 541; 1989.
- 2) Christensen K, Herking A. M., Junker P., : *Ugeskr L* : 15; 289; 1993.
- 3) Desai P., Chandrasekhar G. : *Obstet. & Gynec India* : 38;5;548; 1988.
- 4) Desai P, Desai M., Mody D. : *J. O Obstet & Gynec India* : 44; 1;90;1994.
- 5) Gregorini G., Vermylen J, Spitz B., : *Brit J. Obstet & Gynec.* : 88; 890; 1981.
- 6) Lockshin MD, Druzin ML, Goel : *New : Eng. Jr. Med.*: 3/3; 152; 1985
- 7) Lockwood CJ, Romero R, Feinberg R F : *Am Jr. Obstet & Gynec.* : 156; 114; 1987.
- 8) Purwar M., Bhattacharya P., Sanyal P., : *J. Obstet & Gynec. Ind.* 43; 5; 714; 1993.
- 9) Rai R, Reagan L : *Progress in O. & G.* 12; 135; 1996.
- 10) Scott J. R., Rote NS, Branch DW: *Obstet & Gynec* : 70; 645; 1987.
- 11) Walsh B, Ramon R, Stevens J : *Brit J. Obstet & Gynec.*: 92; 763; 1985.