

A.P.A. Syndrome and Recurrent Missed Abortions and Still Births

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Summary : 150 cases of recurrent missed abortions in late I - trimester or II - trimester and still - births were prospectively investigated for antiphospholipid antibodies (APA). 82.9% cases of missed abortions and 77.8% cases of still births tested positive. Amongst those who tested positive about 60% were having moderately positive levels. The vascular basis of changes produced by A. P. A. satisfactorily explains the occurrence of the missed abortions or stillbirths in A. P. A. positive cases.

Introduction

Antiphospholipid antibodies (A.P.A.) are now being investigated in many areas of obstetrics for their associations with them. It is not an exaggeration to state that many hitherto unexplained areas of obstetrics have found solutions due to this syndrome. Triplett and Broderick (1989) standardised as to what constitutes an A.P.A. syndrome. Recurrent pregnancy loss and occurrence of recurrent still births are included therein. Raj (1996) explained the vascular basis for these missed abortions and stillbirths. Being immunological in origin, A.P.A. continues to exert these effects even in subsequent pregnancies.

In the present prospective study, an attempt has been made to investigate the association between recurrent missed abortions and still births in subjects with A.P.A. syndrome.

Material and Methods

This is a prospective study carried out in the Dept. of Obstetrics & Gynecology, Medical College & S.S.G. Hospital, Baroda. The study period was of 5 years commencing from Jan, 1992. to Dec., 1996. Cases with recurrent missed abortions in late 1 trimester and II-

trimester and still births in Unit III of the department were included in this study.

There were two distinct windows of enrollment :-

- a. Here the case had one of the aforesaid adverse obstetric outcome in front of our eyes during our emergency and the mother had come for the treatment of the same. To clarify, those mothers who were already having pregnancy of variable duration and now a missed abortion or a still birth and attending our Labor Room for this condition were enrolled through this window.
- b. The second window of enrollment included the cases who came with past history of such an adverse obstetric outcome now soliciting a work up of this case.

After the enrollment, A.P.A. testing was done at a private laboratory after taking due permission. Examination for A.P.A was carried out by standard ELISA technique and the results were expressed as recommended by Cullis Feinsteini (1986) :

APA	Titer
* High positive	100 GPL units
* Moderately positive	20-100 GPL units
* Low positive	10-20 GPL units
* Insignificant	Less than 10 GPL units.

The results of association if any, between A.P.A. and missed abortions or still births were analysed and discussed in the light of current literature

77.8% of cases who had still births and were tested for A.P.A., tested positive and 22.2% tested negative for the same.

Results

During the period of study we investigated 150 cases of II trimester missed abortions and still births for their association with A.P.A. Of these 150, 123 were cases of recurrent spontaneous missed abortions of late I trimester and II trimester and 27 were cases of still births. In the initial 3 years we were only investigating cases of missed abortions and there after we also included still births. This explains why cases of missed abortions were more in the study

Table I

A.P.A. & Missed Abortions :

	No.	%
Positive	102	82.9%
Negative	21	17.1%
	<u>123</u>	<u>100</u>

As shown in Table I 82.9% cases of recurrent missed abortions of late I trimester and II trimester tested positive for A.P.A.

Table II

Titers of A.P.A. & Missed Abortions :

	No.	%
Low Positive	7	26.5
Moderate positive	64	62.8
High positive	11	10.8
	<u>102</u>	<u>100</u>

62.8% of cases were moderately positive and 100% were low positive

Table III

A.P.A. & S.B.

	No.	%
Positive	21	77.8
Negative	06	22.2
	<u>27</u>	<u>100</u>

Table - IV

Titers of A.P.A. and S.B.

	No.	%
Low Positive	06	28.6
Moderate positive	14	66.6
High positive	01	4.8
	<u>21</u>	<u>100</u>

Of the 21 mothers who had A.P.A. positive and a history of S.B., 66.6% had moderately positive value

Discussion

Since 1906 when Wasserman first described antiphospholipid antibodies, clinicians have been fascinated by them. However it was only in 1962 that Garenstein Christensen first hinted at their association with increased pregnancy loss. Since 1984 when Faaga and Mintz started exploring their association in greater details more and more work started appearing in this area. In 1982, De Wolf et al explained the vascular basis of this disease thereby making explanations for missed abortions and still births easier and understandable. Sporadic or single missed abortions are not included herein as A.P.A. induced changes are a perpetual pathology and the association there of is more distinct in recurrent cases rather than on a single episode.

A figure of 82.9% subjects testing positive may appear high on a cursory look. However on a detailed analysis one can understand this agreeably. This investigation has been done in a selected group of cases who essentially had recurrent spontaneous missed abortions in late first trimester or in second trimester. In the entire population this figure will understandably be low.

This has another clinical bearing also. We feel, now it is imperative to ask every case with history of recurrent abortions as to whether it was a live abortions or a missed abortion. If it was a live abortion it is most likely to have an anatomical cause and if a missed abortion in II trimester then it is likely to be of immunoligical cause.

After De Wolf et al (1982), Rai (1996) demonstrated that vasculopathy induced by antiphospholipid antibodies in the placental bed produces these clinical manifestations of missed abortions and stillbirths. This explains the pathogenesis of these conditions when associated with A.P.A.

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