

RECURRENT SPONTANEOUS ABORTIONS OF IMMUNOLOGICAL CAUSE : A CASE FOR WORK UP AFTER 2 LOSSES

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SUMMARY

One hundred and forty five subjects with history of recurrent spontaneous abortions (RSA) were tested for anti phospholipid antibodies. They were suspected of having this immunological cause on the basis of a history of missed abortions in second trimester. Of these 145, 64 had three or more losses and 81 had two losses. It was found that the diagnostic yield of positive subjects was similar in both the groups. It was also found that weak positives were more in the group of two losses and moderately positive were more in three or more losses group. It is therefore recommended to commence a work up for RSA when an immunological cause is suspected at only two losses rather than waiting for one more loss.

INTRODUCTION

Sporadic miscarriage is a common complication of pregnancy. The incidence of clinically recognizable miscarriage in general population has been reported

to be approximately 15% (Berry et al - 1995, Salat Baroux 1988). However habitual abortions or Recurrent Spontaneous Abortions (R.S.A.) are not that common. Classically the definition of habitual abortion includes 3 or more consecutive (primary or secondary) pregnancy losses. (Acien - 1996).

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Now a days, there is a tendency to use a less rigorous definition. There is also a tendency to label a case as that of RSA after 2 or more pregnancy losses.

One of the objections raised against investigating before 3 losses is that the diagnostic yield after 2 losses will be too low. Also, there might be a difference in results obtained from primary aborters and from secondary aborters (Coulam - 1991). In the present study these possibilities have been examined in the light of abortion due to anti-phospholipid antibodies. From the results so obtained, the possibility of investigating these cases after 2 abortions has been tested.

MATERIAL & METHODS

This study was carried out in Unit III of the Dept. of Obst. & Gynec., Medical College, and S.S.G. Hospital, Baroda. The duration of the study has been divided into two parts :

(1) Jan. 1991 to 31st Dec. 1993 : Three years when we investigated couples after 3 or more abortions. Group A.

(2) 1st Jan. 1994 to 31st Dec. 1996: Later 3 years when we started investigating after 2 or more abortions.

Group B.

Antiphospholipid antibody (APA) testing was requested in subjects with second trimester missed abortions. These were assayed by ELISA technique. As this investigation facility was not available at the institution, help was taken from a private laboratory for the purpose. APA tested were anti cardiolipin antibodies. The results were expressed as standard GPL units and subjects testing positive were classified as under :

Less than 10 GPL units : Negative
10-20 GPL units : Weak + ve
20-100 GPL units : Moderately + ve
More than 100 GPL units : Strongly + ve

Subjects testing positive were grouped separately and analysed for the diagnostic yield. The same was also examined for the difference if any in the groups amongst primary and secondary aborters. Results so obtained were used for drawing valid conclusions.

RESULTS

During the study period 145 subjects were subjected to APA testing.

As shown Table I, of these 145, 64 were in the group A and 81 were

TABLE I
SUBJECTS TESTING POSITIVE

Group	No tested	Positive	%
A	64	33	51.6
B	81	44	54.3

TABLE II
TYPE OF POSITIVITY

Group	Strong +ve		Moderate +ve		Weak +ve		Total
	No.	%	No.	%	No.	%	
A	03	9.1	22	66.7	08	24.2	33
B	05	11.4	19	43.2	20	45.5	44

TABLE III
PRIMARY / SECONDARY ABORTERS

Group	Primary aborters		Secondary aborters	
	No.	%	No.	%
A	20	60.0	13	39.4
B	27	61.4	17	38.6

in group B. Of the 64 subjects of group A (3 or more abortions), 33 (51.6%) tested positive for APA. On the other hand in group B (2 or more abortions), of the 81 subjects 44 (54.3%) tested positive. This difference was not significant with $P > 0.05$.

As shown in Table II, cases who tested strongly positive in both groups did not show a distinct difference. Subjects testing moderately positive and weakly positive were significantly different ($P < 0.01$) in both the groups. The limitation of attaching statistical importance to this observation is

accepted. This is due to the fact that the number of cases was small and statistically significant difference in the two groups of moderately positive and weakly positive is applicable to this study only and may not be applicable to the whole community.

There was no significant difference in the two groups as regards the primary and secondary aborters. This is shown in Table III.

DISCUSSION

Lack of standardization in different studies on RSA is a matter of concern

because results of the studies can have a clinical bearing. Some authors include the losses in first trimester, and others include those that occur at any moment during the first half of pregnancy (Scott, 1994). Many investigators do not include the ectopic and molar pregnancies in the definition of RSA although they believe that in future they should be included because various reproductive losses could share similar causes (Coulam - 1991, Hatasaka & Varner 1994). One more aspect that is being debated amongst groups working in this field is whether to initiate evaluation of a couple for RSA after 2 losses or 3 losses. The apprehension expressed for starting a work up after two abortions is that the diagnostic yield may be low.

In this study, the validity of this apprehension is examined. Contrary to the belief; it was found that the diagnostic yield in the group investigated after 2 losses was not different from that after 3 or more losses. In the former group 54.3% cases tested positive for antiphospholipid antibodies compared to 51.6% in the later group.

Drugan et al (1990) investigated the validity of investigations after 2 losses when chromosomal anomalies were suspected. They have also found a similar diagnostic yield in both the groups.

From this study it appears that subjects testing moderate positive for APA could be more in the 3 and more abortion group compared to those with

2 abortions. On the other side, weak positives were more in subjects with 2 abortions. Accepting the limitation of statistical analysis of this component of the study, it seems that this observation requires to be tested in larger series.

Plouffe et al (1996) have shown that work-ups of such cases should indeed begin after 2 losses irrespective of the order of loss. This is also shown in this study. There was no significant difference in primary and secondary aborters in both the groups.

CONCLUSION

From this study one can conclude that it will be wise to start investigations in a couple with RSA after 2 losses and one need not wait for one more loss. This is more so when immunological cause of RSA is suspected.

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