

OBSTETRIC OUTCOME IN PATIENTS WITH HISTORY OF SPONTANEOUS ABORTIONS

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SUMMARY

This is an analysis of obstetric outcome of patients who had spontaneous abortions in their past obstetric performance and this time the pregnancy went beyond 28 wks. 5 groups of mothers with 300 subjects in each were analysed. The groups without abortions in past and that of primi gravidas served as controls. A distinct group of women with spontaneous resolution after recurrent spontaneous abortions (R.S.A.) was made. It was found that mothers with history of spontaneous abortions in the past had higher incidence of threatened abortions, antepartum haemorrhage, preterm labours, IUGR, depressed babies at birth as well as congenital malformations. Even amongst the aborters, those mothers with R.S.A. has the highest chance of these adverse obstetric outcome.

INTRODUCTION

Women with spontaneous abortions in their past obstetric performance are suggested to have a tendency to adverse obstetric outcome in subsequent pregnancies. They tend to have preterm labours (Schoenbaum and Stubblefield, 1980), IUGR (Funderburk, et al 1973) and higher perinatal mortality (Pontelakis et al 1973). However upto 30% women do progress beyond 28 weeks of pregnancy in subsequent performance (Reginald et al 1987). These are the mothers who have been studied as regards

some of their obstetric outcome when they progressed beyond 28 weeks.

MATERIAL AND METHODS

This is a retrospective study of 300 mothers each, in 5 groups who had pregnancies beyond 28 weeks. It was carried out in the dept. of Obstetrics and Gynaecology, Medical College and SSG Hospital, Baroda.

The 5 groups were :

- 1) $G_1 P_0$: 300 primigravidae and now pregnancy beyond 28 weeks.
- 2) $G_2 P_1$: 300 Second gravida with one FTND and now pregnancy beyond 28 weeks.

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3) G₂ P₀ : 300 second gravida with one spont. abortion in the last pregnancy and now pregnancy beyond 28 weeks.

4) G₃ P₁ : 300 third gravida with one normal delivery, one spontaneous abortion and now pregnancy beyond 28 weeks.

5) R. S. A. : 300 patients with two or more than two consecutive pregnancy wastage and this time preg. beyond 28 wks.

Two points need to be noted here : Firstly Groups 1 and 2 served as controls for compared the outcome of other three groups as the former never had spontaneous abortions. Secondly, patients in the last group (R.S.A. - Recurrent Spontaneous Abortions) were not treated for the same and thus had spontaneous resolution and therefore progressed beyond 28 wks. of pregnancy. Those who were treated with any modality - rational or irrational - were not included in the study.

The results obtained from the obstetric performances of these 5 groups were then subjected to annalysis to draw conclusions therefrom.

RESULTS

As shown in this table - patients with history

of spontaneous abortions in the past tend to have a higher incidence of 1st trimester bleeding and antepartum haemorrhage. This difference was most distinct between mothers without spont. abortions and those with R.S.A.

Still births do not occur more frequently amongst non aborters and aborters. However preterm labours are most amongst those with history of R.S.A. as compared to non aborters. Babies born to mothers with history of abortions tend to give births to distinctly more depressed babies at one minute as could be judged by their Apgar scores. Incidence of IUGR was distinctly higher in those mothers with R.S.A. as compared to all other groups.

As shown in this table, babies born to mothers with history of R.S.A. tended to be less than 2500 gms. on distinctly more instances. Also congenital malformations in babies born to mothers with abortions in past were more than in those who had never aborted.

DISCUSSION

Spontaneous abortions can prove to be an important indicator of the adverse outcome that a woman may have in subsequent pregnancy, as can be borne out of this study. Threatened abortion in I trimester is more

Table I

Antepartum Problems
(n = 300 in each group)

	G ₁ P ₀		G ₂ P ₁		G ₂ P ₀		G ₃ P ₁		R. S. A.	
	No.	%	No.	%	No.	%	No.	%	No.	%
I trimester bleeding	04	1.33	03	1.0	12	4.0	11	3.67	18	6.0
Preeclampsia	06	5.33	03	1.0	11	3.67	07	2.33	08	2.67
Admission for threatened preterm labour.	09	3.0	12	4.0	09	3.0	08	2.67	14	4.67
A.P.H. (due to placenta previa or Accidental Haemorrhage	02	0.67	03	1.0	04	1.33	11	3.67	11	3.67

Table II

Intrapartum Fetal Outcome
(n = 300 in each group)

	G ₁ P ₀		G ₂ P ₁		G ₂ P ₀		G ₃ P ₁		R. S. A.	
	No.	%	No.	%	No.	%	No.	%	No.	%
Still births	02	0.67	03	1.0	04	1.33	00	00	07	2.33
Preterm labour	21	7.0	14	4.67	26	8.67	16	5.33	31	10.33
Apgar less than 6 at 1 minute.	16	5.33	13	4.33	29	9.67	33	11.0	46	15.33
I. U. G. R.	12	4.0	08	2.67	13	4.33	11	3.67	28	9.33

Table III

Post Partum Outcome
(n = 300 in each group)

	G ₁ P ₀		G ₂ P ₁		G ₂ P ₀		G ₃ P ₁		R. S. A.	
	No.	%	No.	%	No.	%	No.	%	No.	%
- Birth weight 2500 gms.	32	10.67	22	7.33	39	13.0	27	9.0	59	19.67
- Neonatal deaths	01	0.33	01	0.33	02	0.67	03	1.0	02	0.67
- Congenital malformation	19	6.3	17	5.6	36	12.0	15	5.0	31	10.3

amongst women who had an abortion as compared to those who never aborted. However this difference was most in women who had R.S.A. as compared to the other groups. However women with history of abortions in past were not found to be at an increased risk of developing preeclampsia or threatened preterm labour. Harlap and Davics (1975) also showed higher incidence of threatened abortion in their series. It should be accepted that there could be a small element of reporting or recall bias in these women. A woman who had an abortion in past is more readily going to report even minimal bleeding as compared to one without

an abortion in past. This question therefore requires to be investigated further.

The most distinct area of difference as regards preterm births is found in women with history of R.S.A. Reginald (1987) clearly showed a similar higher incidence of preterm births in the group with R.S.A. This is also found in larger population based studies of Alberman et al (1980) and Schoenbaum and Stubblefield (1980). Hence the present findings are not likely to be a result of chance. Similarly, IUGR is also found higher in women with R.S.A. However in the present study IUGR was not found to be higher in other

groups of aborters and non aborters. It has been suggested by Robertson et al (1985) that preterm labours, IUGR, birth of depressed babies and such complications are a result of defective placentation. In human placentation, non villous trophoblasts invades the maternal decidua to infiltrate the spiral arteries to supply the growing concepts (Pjinen born et al 1985). This Robertson et al (1985) says is defective in women with recurrent miscarriages and thus an adverse obstetric outcome.

There has been a considerable interest in the issue of whether and how spontaneous abortion is related to congenital malformations in subsequent pregnancy. The observation of the present study that congenital malformations are distinctly more has been found by two others groups (Clarke et al 1975) and (Gardiner et al 1978) as well. One hypothesis suggested by Gardiner et al (1978) is that the malformations might be due to an interaction between "rests" from previous trophoblastic material and the subsequent pregnancy. This interaction could be altering the timing or occurrence of developmental events and lead to an abnormal fetus.

CONCLUSION

Patients with spontaneous abortions in the past are more susceptible to threatened abor-

tions, antepartum haemorrhage, preterm labour, depressed apgar score at one minute, IUGR and congenital malformations. This becomes most distinct if the mother had recurrent spontaneous abortions in the past and this time as a spontaneous resolution carries her pregnancy beyond 28 weeks of gestation.

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