Analysis of Obstetric Outcome in Subjects Having History of Bleeding P.V. in I-Trimester

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Summary

Two hundred & sixty four cases with history of bleeding per vaginum in I-trimester and who continued their pregnancies spontaneously (without any specific treatment) were analyzed for their obstetric outcome. They were found to have higher incidence of placenta previa and P.I.H. in the mothers. Babies born to such mothers had higher incidence of I.U.G.R., preterm labor and APGAR less than 6 at 1 minute. A strong possibility of immunological basis linking up some of these events becomes obvious by these results

Introduction

Threatened abortion was the age-old terminology used for subjects with bleeding per vaginum (PV) in early pregnancy. However, with the advent of modern technology especially ultrasound, this so-called threat seems to have vanished. Nearly all such bleedings can now be explained. This obliviated the "threat" of abortion. If she is to abort it can be predicted confidently, if not it can be accurately predicted that the patient can continue her pregnancy. It has therefore, become pertinent to find out the bearing if any of such bleeding on subsequent obstetric outcome. It is possible that the cause that produced this bleeding also produces some complications subsequently. This includes causes where there is an endrocrinological etiology (Radwanska et al – 1978) or an immunological cause. Our group studied the immunological basis of recurrent pregnancy loss and obstetric outcome in cases that had a spontaneous resolution (Desai & Desai – 1993). We did find a significantly higher incidence of early pregnancy bleeding in these cases.

The present analysis helps in identifying such causes, if any predicts its subsequent behaviour and institute treatment modalities wherever possible, early

Subjects & Methods

This study was carried out in Unit III of the Dept. of Obst. & Gyn. Medical College and S.S.G. Hospital, Baroda. Obstetric outcome in subjects in whom there was a history of bleeding per vaginum in first trimester were recorded. This was compared with outcome of cases that delivered immediately after the indexed cases. Significant obstetric events were compared. The results were tabulated and checked for statistical analysis by the standard chi-square test. This was further counter checked on computers by SPSS software.

Results

In all 264 subjects were analyzed. These constitute the group of cases. Other 264 selected by the criteria described in the previous section served as the control

Table-I
Maternal outcome

Condition	Cases (N=264)		Controls (N=264)		Chi-square Value	P Value	
	No.	%	No	%			
P.I.H.	37	14.1	21	12.6	4.58	<0.02	Significant
Pl. Previa	13	4.9	03	1.1	31.25	<0.001	Significant
Abruptio	15	5.7	13	4.9	2.008	>0.5	Not significant

group. Specific outcomes studied in the maternal fold were pregnancy induced hypertension (P.I.H.) remote from term, placenta previa and abruptio placentae. In the fetus, preterm labor, intra uterine growth restriction (IUGR), congenital malformations, neonatal deaths and Apgar score less than 6 at one minute after birth were studied.

As shown in Table I, incidence of P.I.H. was 14.1% in indexed cases and 12.6% in the controls. This difference was found to be statistically significant with P value <0.02. Placenta previa was significantly higher in the cases than in controls. However we did not have the USG reports of early trimesters of these cases and therefore are not in a position to compute the correlation between early pregnancy bleeding, low lying placenta and occurrence of placenta previa. The other placental problem of abruptio placentae was not significantly different in the two groups with P value being > 0.5.

As shown in Table II, there were areas in prenatal outcome, which were distinctly more in the groups who had bleeding in early pregnancy. These were preterm labour, I.U.G.R., and APGAR scores less than 6 at 1 minute after delivery. Interestingly congenital malformations and neonatal deaths were not more in subjects with bleeding in early trimester.

It is to be noted that there were subjects who had more than one of the specified outcomes. This was in both the groups. As this had no bearing on the statistics of this analysis this aspect was ignored.

Discussion

Results emerging from this study are subtle. However they are neither myth shattering nor mind boggling. But they do provide areas for subsequent research in matters related to periconception care.

P.I.H. remote from term has a strong immunological basis as is well established now (Desai et al, 1997). Adverse obstetric outcomes are known to occur with these immunological causes. Early pregnancy bleeding could indicate an expression of such an immunological cause. Subsequent expression of this could have been P.I.H. remote from term. Interestingly, abruptio placenta is not more in subjects with bleeding. The question raised is does one expect it to be more? The answer is a subtle yes. Accidental hemorrhage also has an immunological basis. Though we did find PIH to be more, we did not find accidental hemorrhage to be more. This is not to deny the association between immunology and accidental hemorrhage. We accept the limitation of this study on this aspect. As the number of causes with abruption were less in both groups, larger groups may reveal the association if any.

On the other hand placenta previa is expectedly more in study cases than in controls. Low-lying placenta is a well-established cause of early pregnancy bleeding

Table-II
Perinatal outcome

Condition	Cases (N=264)		Controls (N=264)		Chi-square Value	P. Value	
	No.	%	No	%			
Pre-term Labor	44	16.7	14	5.3	22.44	<0.001	Significant
IUGR	110	41.7	53	20.1	28.796	<0.001	Significant
Cong. Mal.	06	2.3	07	2.7	Not applicable	-	
Neonatal Deaths	02	0.8	03	1.1	Not applicable	-	
APGAR <6 at 1 mt.	40	15.2	13	4.9	14.51	<0.01	Significant

which may subsequently express as placenta previa.

As regards perinatal outcome, preterm labor and IUGR being more was not very surprising. IUGR has a proven immunological association and the expression as I-trimester bleeding is only to be expected. Robertson et al (1985) attributed this to defective placentation that now is accepted as an expression of immunological problem. As regards preterm births the findings of this study are similar to that of Reginald et al (1993). Though congenital malformations and neonatal deaths were not more the number of cases was small to draw broad based conclusions. However, babies born to mothers with early pregnancy bleeding were more likely to be asphyxiated at 1 minute.

In terms of pure statistical academics, for this study those events where number of cases were less than 20 in both groups have a small limitation. Conclusions drawn in there are applicable only to the present study and may not be applicable to the community at large. However, other events had subtle outcomes with well-proved conclusions. It would have required a sample size of 2376 in each group for all groups to have the requisite figure. This in clinical practice may not be very necessary.

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