Relationship of previous fetal losses and pregnancy outcome

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Summary: 219 Patients with previous losses were followed up throughout pregnancy to see the effect of such losses on the outcome of present pregnancy in relation to 100 controls.

There was a significantly increased incidence of IUGR, PET, loss of fetal movements, low birth weight babies and fetal congenital anomalies in patients with previous two or more recurrent losses.
In patients with a previous isolated loss there was only a significant increase in the incidence of acute fetal distress and low birth weight babies.

A few patients of previous two or more fetal losses were investigated for presence of antiphospholipid syndrome and the occurrence of adverse pregnancy features and adverse fetal outcome were found to be significantly higher in these patients as compared to patients not having this syndrome.

Introduction

The aim of antenatal care is to give a healthy mother and a healthy baby by anticipating and managing the complications which may arise in the course of pregnancy. Patients who have had abortions and/or still births are particularly apprehensive, and require special care to prevent a recurrence where possible. The present study was undertaken to assess the problems which arise following such mishaps. Selected patients have also been studied to determine the incidence of antiphospholipid syndrome, which has recently come up as an important cause.

Materials and Method

The present study was undertaken in Queen Marys Hospital, K. G. Medical college, Lucknow. In total 319 patients were registered from antenatal clinic and followed throughout the pregnancy. Patients were divided into following three groups for study:

Group A: 121 Patients with previous history of single isolated pregnancy loss (spontaneous abortion and/or still birth)

Group B: Included all patients with history of previous 2 or more than 2 still births, or one or more spontaneous abortion plus one or more still birth. Total of 98 patients were studied. Some of these patients were investigated for antiphospholipid syndrome by lupus anticoagulant test (raised APTT which did not correct on addition of normal plasma) and anticardiolipin antibody.

Control Group C: 100 patients with previous normal pregnancy outcome. Following groups of patients were excluded: incompetent os, known diabetics and Rh-ve. mothers.

All the patients in groups A, B and C were followed throughout pregnancy, their delivery and fetal outcome were noted.

Results

Obstetric problems noted in all the three groups are shown in Table 1.The incidence of PET, IUGR and loss or diminished fetal movements were significantly higher in the Group B (pregnancy with two or more recurrent losses) as compared to group A, p=0.0000 for PET, 0.02 for IUGR, and 0.0000 for loss or diminished fetal movements, p values in relation to group C were .00000 for PET, 0.0004 for IUGR and 0.0000 for loss or decreased fetal movements. Incidence of bleeding in all the three trimesters were also significantly higher in group B in comparison to Group A (p=0.0002 for first trimester bleeding and 0.00001 for second and third trimester

Table-1

Obstetrics Problems in Present Pregnancy

Obstetric problem	Group A n=121		Group B n=98		Group C n=100	
	No.	%	No.	%	No.	%
First trimester bleeding	4	3.30	21	21.42	0	0
Second trimester bleeding	3	2.47	12	12.24	1	1
Third trimester bleeding	3	2.47	14	14.28	1	1
Abortion	1	0.83	2	2.04	0	0
IUGR	16	13.22	25	25.51	7	7
PET	11	9.09	75	76.43	3	3
Loss/ diminished Movements	11	9.09	69	70.40	4	4
PROM	11	9.09	14	14.28	4	4
Oligohydramnios	1	0.82	1	1.02	0	0
Polyhydramnios	0	0	5	5.10	0	0
Acute fetal distress	18	14.87	16	16.32	3	3
Thick mec. Stained liquor	6	4.9	13	13.26	2	2

Table -II

Fetal Outcome in Different Groups

Fetal Outcome	Group A n=121		Group B n=100		Group C n=102	
	No.	%	No.	%	No.	%
Abortions	1	0.82	2	2	0	0
Still births	2	1.65	6	6	3	2.94
Birth Weight <2.5 kg	35	29.16	34	34.69	18	17.64
Apgar score =<7	10	7.43	14	15.21	5	5.05
Neonatal admissions	10	7.43	16	17.39	6	6.06
Early NND	0	0	2	2.17	3	2.94
Congenital anomalies	1	0.84	5	5.4	0	0
Presence of retroplacental clot	2	1.65	8	8.16	1	1

bleeding) and in comparison to Group C i.e. normal pregnancy (p=0.000001 for first trimester bleeding and 0.0000008 for second and third trimester bleeding). Incidence of acute fetal distress was more in both groups A and B in comparison to Group C (p=0.0026 and 0.0032 respectively). There was no statistical difference in any of the other parameters between the three groups.

Table II showed that group B (patients with two or more fetal losses) had higher incidence of low birth weight babies (birth weight<2.5kg)in comparison to Group C (p=0.006). Babies requiring neonatal admission were more in Group B as compared to Group C (p=0.01) and Group A (P=0.05). Congenital malformations were more in Group B in comparison to Group C (p=0.02) and Group A (p=0.05). Presence of retroplacental clot was seen more frequently in Group B patients as compared to Group C (p=0.003) and Group A (p=0.02).

Table-III

Pregnancy outcome in patients with elevated and normal APTT within group B.

Obstetrical feature	Elevated APTT Group n=6		Normal APTT Group n=39	
	No.	%	No.	%
First Trimester Bleeding	2	33.33	9	23.33
Second Trimester Bleeding	0	0	8	20.51
Third Trimester Bleeding	1	16.66	5	12.82
Abortion	0	0	1	2.56
PET	3	50.00	9	23.07
IUGR	4	66.66	5	12.82
Loss/ diminished movements	3	50.00	8	20.51
PROM	2	33.33	4	10.25
Acute fetal distress	4	66.66	9	23.07
Thick meconium stained liquor	1	16.66	5	12.82

Table-IV

Fetal outcome in Patients with elevated and normal APTT within group B.

Fetal outcome	Elevated APTT group n=6		Normal APTT group n=39	
	No.	%	No.	%
Still births	0	0	2	5.12
Birth weight<2.5kg	4	66.66	10	26.3
Apgar score<8	3	50.0	3	8.33
Neonatal admissions	2	33.33	2	5.56
Early neonatal deaths	1	16.66	0	0
Congenital anomalies	0	0	1	2.7
Presence of retroplacental clot	2	33.33	1	2.56

Group A (patients with isolated loss) also showed higher incidence of low birth weight babies when compared with Group C (p=0.04).

Investigations for Antiphospholipid Syndrome could only be done in a few selected patients due to the limited availability of the test kit. In Group A 12 patients and in Group C 15 patients were tested for APTT and were found to be normal. In Group B APTT was done in 45 patients and 6(13.33%) were found to have elevated APTT and 5 of these were ACL (anticardiolipin antibody) positive also.

There was a significantly higher incidence of adverse pregnancy features as shown in Table III. IUGR was more common in raised APTT patients in comparison to normal APTT patients within Group B (p=0.01). Acute fetal distress was also seen more commonly in raised APTT patients in relation to normal APTT patients (p=0.04) in Group B.

Fetal outcome was also poorer in the patients with antiphospholipid syndrome as shown in Table IV. There was a higher incidence of low birth weight babies, and babies born at a low Apgar score in raised APTT patients in comparison with normal APTT patients (p=0.07 and 0.02 respectively). Presence of retroplacental clot was seen more commonly in raised APTT patients (p=0.04).

Discussion

A total of 219 patients were studied along with 100 controls. Study design was of a prospective cohort study. A very significant increase can be seen in the incidence of all adverse obstetrical features in present pregnancy in the group with 2/>2 recurrent fetal losses (Group B), and a smaller yet significant increase in the group with a single isolated loss (Group A) as compared to controls (Group C). The high incidence of abortion in patients with previous loss has been seen by other authors also. (Leridon 1987, Parazzini et al 1988.). The increased prevalence of SGA babies, still births and perinatal deaths in patients with previous losses has also been shown by Coulam et al, 1994. The higher incidence of congenital anomalies in patients with 2 or more losses has also been reported by Carmi et al, 1994. The higher incidence of fetal complications in the elevated APTT group (patients with antiphospholipid syndrome) has also been reported by Harris, 1993.

The present study concludes that even with good obstetric care, pregnancy complications and adverse fetal outcome are more in patients with previous pregnancy losses. Fetal salvage rate could be improved as a result of obstetric supervision, though the babies were often growth retarded in the group with previous losses. Perhaps if they had been cared for as vigilantly in the first pregnancy then some of the losses could have been avoided.

References

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