

Original research article:

Study of risk factors and complications in abruptio placentae

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Abstract:

Introduction: Abruptio placentae is the premature separation of normally located placenta from its site of implantation after 28th weeks of gestation and prior to birth of fetus. The term Abruptio placentae continues to extract a heavy toll of both fetal and maternal lives in developing countries.

Methodology : The present study was conducted during a time period two year . During this study 12,226 patients were delivered at P.R.H., which is the only tertiary health care centre in the district and gets emergency cases from nearby townships and villages within a radius of 100kms.

Over same period, out of all delivered women, 136 patients were diagnosed and treated for Abruptio placentae.

Results: Pain in abdomen and per vaginal bleeding was of the commonest presenting symptoms, loss or less fetal movements on admission was also the complaint in 43% patients.

Conclusion: Anaemia is very common among the population under study hence may only be an associated factor. Clinical appearance of pallor is more suggestive of blood loss rather than haemoglobin which which may be normal due to haemoconcentration.

Introduction

Abruptio placentae¹ is the premature separation of normally located placenta from its site of implantation after 28th weeks of gestation and prior to birth of fetus. The term Abruptio placentae continues to extract a heavy toll of both fetal and maternal lives in developing countries. The condition mostly occurs suddenly without warning and causes sudden and rapid deterioration in maternal and fetal health. Once abruptio takes place, due to whatever reason, life of mother and baby is exposed to great risk.

The extent of abruptio varies from small to an extensive area in an individual case. It has been

suggested that, at first a retroplacental haematoma forms; which may build up sufficient pressure to rupture basal plate. Haematoma formation further separates the placenta from uterine wall leading to compromise in fetal blood supply.^{2,3}

If the detachment of placenta is at its margin blood may insinuate between the membranes and uterus escaping through the cervix causing external haemorrhage. Less often, the blood is retained between the detached placenta and the uterus, leading to concealed haemorrhage. Haemorrhage into decidua basalis occurs as the placenta separates from the uterus. Vaginal bleeding usually follows, although there could be presence of concealed

haemorrhage in which blood pools behind the placenta.

There is no cause as such, that can be pinpointed as an etiological factor for abruption placentae, however there are several conditions which predispose to or are associated with premature separation of placenta.⁴

Maternal hypertension, maternal trauma, cocaine abuse, cigarette smoking, short umbilical cord, sudden decompression of uterus (example – premature rupture of membranes in polyhydramnios and delivery of first twin), retroplacental fibroma and advanced maternal age are known factors associated with abruption⁵.

Naeye^{5,6} found strong association between poor weight gain and abruption in pregnancy. Hibbard et al⁷ have shown folic acid deficiency as a causative factor.

Materials and methods

The present study was conducted during a time period two year . During this study 12,226 patients were delivered at P.R.H., which is the only tertiary health care centre in the district and gets emergency cases from nearby townships and villages within a radius of 100kms.

Over same period, out of all delivered women, 136 patients were diagnosed and treated for Abruptio placentae.

All women coming to hospital with pregnancy more than 28 weeks and having clinical features suggestive of abruptio placentae were included in the study. All cases were admitted in critical care unit of maternal ward. A detailed history of patients were noted down. All of them were examined and investigated with help of proforma.

Results:

TABLENO.1 : DISTRIBUTION OF CASES AS PER CLINICAL FEATURES

PRESENTING SYMPTOMS	NO. OF CASES	PERCENTAGE
PV bleeding	115	84.55
No fetal movements	32	23.52
Less fetal movements	26	19.11
Pain in abdomen	95	66.17
Oedema	78	57.35
Headache	50	36.76
Vomitting	12	8.82

Pain in abdomen and per vaginal bleeding was of the commonest presenting symptoms, loss or less fetal movements on admission was also the complaint in 43% patients.

TABLE NO.2 :DISTRIBUTION OF CASES AS PER BLOOD PRESSURE

	NO. OF CASES	PERCENTAGE
PIH	82	60.29
NON PIH	54	39.71

Majority (60%) of patients had associated pregnancy induced hypertension.

TABLENO.3 :ASSOCIATED RISK FACTORS

SR. NO.	RISK FACTORS	NO. OF CASES	PERCENTAGE
1	Anaemia	96	70.58
2	PIH	82	60.29
3	PROM	11	8.08
4	Trauma	1	0.7
5	Eclampsia	4	2.94
6	Breech presentation	2	1.4
7	Twins	2	1.47
8	Hydramnios	28	20.5

Anaemia has highest association with abruption other associated factors were PIH, PROM,hydramnios, twins, abnormal lie, eclampsia.

Discussion

Anaemia is very common among the population under study hence may only be an associated factor. Clinical appearance of pallor is more suggestive of blood loss rather than haemoglobin which which may be normal due to haemoconcentration.

In the present study 70% (96)of cases had anaemia of varied degree.

Although it is reported that anaemia ia an important causative factor for abruption placenta, it is very difficult to comment its relationship as a causative factor for abruption, because majority of cases were unregistered and we were not aware of their prior status of haemoglobin levels. Low haemoglobin levels at admission could be attributed to acute blood loss due to abruption.In this study multiple vitamin deficiency and nutritional deficiency in almost all patients prevented any single factor

from being conclusively studied. Estimation of folic acids levels were not done due to lack of facilities.

28 cases of hydramnios developed abruption following spontaneous rupture of membranes. In the present study there were 11 patients with premature rupture of membranes, wheather PROM is a causative factor or just a association is not clear.

Per vaginal bleeding(84%) was the commonest presentation in 115 cases in study group. Pain in abdomen was complained by (66%) 95 women at the time of admission, loss and less of fetal movements was complained by (44%) 58 women at the time of admission.

Reported incidence by various authors is very low. It could be due to non collection of this important information by other authors after confirmation of intrauterine death by clinical or ultrasonological methods.

Thus presenting symptoms vary widely in different situations. Many cases presented with clinical features of pregnancy induced hypertension

like oedema in 78 cases(57%), headache in 50 cases(37%) , vomiting in 9cases(9%).

In present study 74 cases (54%) of abruption presented with picture of mixed variety. Isolated revealed seen in 41 cases (30%) and concealed picture was observed in 21 cases(15%). Same findings are shown by other authors. In our study majority of cases had abruption of grade II and above as per

Page's¹¹ classification, much the same as compared to study by Menon⁸.

Conclusion:

Anaemia is very common among the population under study hence may only be an associated factor. Clinical appearance of pallor is more suggestive of blood loss rather than haemoglobin which which may be normal due to haemoconcentration.

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