

Original research article:

Study of outcome of pregnancy in terms of maternal complications in abruptio placentae

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Abstract:

Introduction: The extent of abruption 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.

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.

Results : 33%LSCS were done for fetal distress, 40% had history of scared uterus 14% were done for failure of induction, 7% were done for maternal shock.

Conclusion: In rural areas, high index of suspicion and diagnostic acumen of medical practionors at periphery to timely referral should be supported by high standard of institutional care for critically ill mothers.

Introduction:

The extent of abruption 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.¹

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^{2,3}

Retroplacental blood may penetrate through the thickness of uterine wall, into peritoneal cavity a phenomenon known as ‘ Couvelaire uterus³’(Uterine apoplexy), where the myometrium becomes weakened and may rupture during contractions, leading to life threatening obstetrical emergencies. The severity of fetal distress correlates with degree of placental separation. In near complete or complete abruption, fetal death is inevitable, unless timely caesarean delivery is performed.

Abruptio placentae occurs one in every 120 deliveries, with an incidence which varies widely throughout the world, ranging from 0.49%(Goldich)⁴ to 1.29%(Lunan)⁴ of deliveries. Thirty two percent of third trimester bleeding is diagnosed as abruptio placentae (Douglas Knob 1978)⁴

Maternal complications encountered are hypovolemic shock, coagulation failure, renal failure, uterine inertia, puerperal sepsis. High perinatal loss is related to problems like prematurity, associated fetal congenital malformations. According to Pritchard et al⁵ fetal mortality was proportional to degree of placental separation. The availability of recent diagnostic modalities like trans-vaginal ultrasound may prove helpful, a timely diagnosis and effective intervention is required in these cases to improve maternal and perinatal outcome.

Results:

TABLE NO 1 :DISTRIBUTION OF CASES AS PER SEVERITY OF ABRUPTIO PLACENTAE

GRADE	NO. OF CASES	PERCENTAGE
0	7	5.14
I	37	27.22
II	41	30.14
III	51	37.5

Majority (38%) patients had severe abruption.

TABLE NO 2 : DISTRIBUTION OF CASES AS PER MODE OF DELIVERY

MODE OF DELIVERY	NO. OF CASES	PERCENTAGE
LSCS	86	63.23
Vaginal	50	36.77

63% patients underwent LSCS while 37 % patients delivered vaginally.

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.

TABLE 3: DISTRIBUTION OF CASES AS PER INDICATIONS OF LSCS

INDICATION OF LSCS	NO. OF CASES	PERCENTAGE
Fetal distress	28	32.55
Prev. LSCS unfavourable cervix	26	30.23
Prev. 2 LSCS	8	9.30
Failure of induction	12	13.95
Breech	2	2.32
Twins	2	2.32
Maternal shock	6	6.97
Transverse lie	1	1.16
Ruptured uterus	1	1.16

33%LSCS were done for fetal distress, 40% had history of scared uterus 14% were done for failure of induction, 7% were done for maternal shock.

TABLE 4 :DISTRIBUTION OF CASES AS PER MATERNAL MORTALITY AND MORBIDITY

COMPLICATION	NO. OF CASES	PERCENTAGE
Anaemia	126	92.64
PPH	22	16.17
DIC	7	5.14
Renal Failure	2	1.47
Sepsis	0	0
Local wound infection	5	3.67
Mortality	1	0.73

Common maternal complications in present study were anaemia (93%) and post partum haemorrhage (16%).

TABLE 5 :DISTRIBUTION OF CASES AS PER BLOOD TRANSFUSION

BLOOD COMPONENTS	NO. OF CASES	PERCENTAGE
PCV	122	89.70
WB	92	67.64
FFP	93	68.38
PLATELETS	86	63.23

122 patients 94% patients required blood transfusion, 90% were transfused with PCV.

68% were transfused with whole blood, and fresh frozen plasma.

TABLE 6 : DISTRIBUTION OF CASES AS PER ADMISSION TO DELIVERY INTERVAL

Causes	No. Of cases	Percentage
0-6 hrs.	84	61.76%
6 to 12 hrs.	40	29.41%
More than 12 hrs.	12	8.82

Most patients (62%) delivered within 0-6 hours of admission, 9% patients took more than 12 hours time to deliver from the time of admission.

Discussion:

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 Menon⁴⁷.

Diagnosis of abruption placenta was mainly done clinically on the basis of history and clinical examination. Ultrasonography was used basically to rule out placenta previa as suggested by Randall⁶ (1996). There is only 20% accuracy for clinical diagnosis of abruption placenta by ultrasonography. (Khanna⁷ 1992).

Immediately after resuscitative measures had been started, artificial rupture of membranes was done. Labour was induced or augmented depending

upon the clinical condition of patient in an attempt to expedite delivery.

Labour was induced for those patients who were not in labour with ARM+ IV oxytocin drip or cerviprime gel or misoprostol vaginal tablets. With artificial rupture of membranes and intravenous oxytocin induction delivery interval was shortest. Vaginal Misoprostol tablets and cerviprime gel took little longer time. Perinatal morbidity and mortality still continues to be very high and extra efforts will be required to reduce it. Illiteracy, poverty and ignorance, pre existing anaemia, lack of

communication facilities, lack of availability of blood transfusion contribute to adverse maternal and fetal outcome. In rural areas, high index of suspicion and diagnostic acumen of medical practitioners at periphery to timely referral should be supported by high standard of institutional care for critically ill mothers.

Conclusion:

In rural areas, high index of suspicion and diagnostic acumen of medical practitioners at periphery to timely referral should be supported by high standard of institutional care for critically ill mothers.

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