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ABRUPTIO- PLACENTA AND ITS MATERNAL AND FETAL OUTCOME

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ABSTRACT

BACKGROUND: Abruptio-placenta (AP) which is a major cause of maternal morbidity and perinatal mortality globally is of serious concern in developing world .We retrospectively analyses the AP cause and evaluated its impact on fetal and maternal outcome .Aims of this study is to assess the risk factors of abruption placenta and study the maternal and fetal outcome.

MATERIAL AND METHODS : In this retrospective study, patients with abruption placenta who were admitted at the Department of Obstetrics and Gynecology in our teaching based tertiary care institution Smt.S.C.L.General hospital,saraspur,ahmedabad from June 1 2019 to May 31,2020 were randomly selected for the study.

RESULTS : Out of 75 cases of abruptio-placenta ,most of the cases were unbooked ,with age between 21-30 and nearly 80%patients were from low socioeconomic class .Anemia was observed in 65% of patients ,with 0% and 47% incidence of maternal and fetal mortality ,respectively.

CONCLUSION : Even when being aware of the risk factors ,placental abruption still remains unpredictable or unpreventable .Having better equipped obstetrics and neonatal units with multidisciplinary management can improve both maternal and perinatal outcome in case of placental abruption.

KEYWORDS : Abruption-placenta, ante partum hemorrhage, gestational hypertension, perinatal mortality.

INTRODUCTION :

Abruption-placenta is defined as the preterm partial or complete separation of normally implanted placenta from uterine wall .AP is a major cause of maternal morbidity and prenatal mortality globally and specially in developing word .AP complicates 1 in 119 pregnancies in our institution .Although etiology of AP is not fully understood ,its generally multifactorial, that is ,impaired placentation ,placental insufficiency ,intrauterine hypoxia ,uteroplacental under perfusion ,hypertensive disorders of pregnancy ,nonvertex presentation ,polyhydromnios ,intra uterine growth restriction ,advanced maternal age ,maternal trauma ,cigarette smoking ,alcohol consumption ,short umbilical cord ,sudden decompression of uterus ,retroplacental fibroma ,retroplacental bleeding from needle puncture (i.e.amniocentesis) ,prior fetal demise and fetal death .Additionally previous incidence of AP ,family history measurement of uterine artery flow in early pregnancy may provide useful information .We conducted this study to understand the rate of AP in our study population ,its consequence on fetal and maternal outcome and to identify the associated risk factors.

AIMS AND OBJECTIVE

- To determine the risk factors and etiological factors of abruption placenta.
- To analyze the fetal and maternal outcome of abruption placenta.

MATERIALS AND METHODS:

Study Design: Retrospective open label observational study

Study location: A tertiary care teaching hospital based study done in Department in obstetrics and Gynaecology, Smt S.C.L.General Hospital, Saraspur, Ahmedabad.

Study Duration: June 1 2019 to May 31 2020

Sample size: 75 patients

INCLUSION CRITERIA:

1. Age group-any
2. Irrespective of parity
3. Associated with anemia
4. Any variety of abruption placenta-revealed ,concealed or mixed
5. Irrespective of mode of previous delivery-vaginal/caesarean
6. Malpresentation
7. Any associated obstetric condition except multiple pregnancies, proven cases of placenta previa, rupture uterus.

EXCLUSION CRITERIA

1. Known case of placenta previa
2. Rupture uterus
3. Multiple pregnancy
4. Placenta accreta ,increta and percreta succenturiate ,vasa previa
5. Gestational age less than 28 weeks
6. Associated cardiac condition

RESULT

Total 75 cases of abruption-placenta who were admitted at the Department of Obstetrics and Gynecology in our tertiary care institute from June 1, 2019 to May 31, 2020 were randomly selected for study.

1. AGE WISE DISTRIBUTION

AGE IN YEARS	CASES	PERCENTAGE
< OR = 20	7	9.33
21-25	36	48
26-30	25	33.34
>30	7	9.33-

Maximum number of cases (48%) of abruption placenta were between 21-25 years .Next most common age group were between 26-30 years .Age at and below 20 and more than 30 have similar percentage .In different studies patients between 21-25 years of age were 51.48 % in Madras medical college 2012, 47.6% in Khan et al 2017 which correlates with present study.

2. PARITY WISE DISTRIBUTION

PARITY	CASES	PERCENTAGE
1	32	42.67
2	25	33.33
3 OR MORE	18	24

Maximum number of cases were primi- gravida (43%).33% woman were second gravida and 24% were multi-gravida .Study in Madras medical college 2012 shows that 61.38 % female were second para or more than that and Mukherjee and kaul et al 2014 shows that 81.1.Which indicates that incidence of abruption increases with parity.

3. ETIOLOGICAL DISTRIBUTION

CAUSE	CASES	PERCENTAGE
HYPERTENSION	37	49.3
PROM	04	5.3
TRAUMA	03	4
HYDRAMNIOS	02	2.7
SHORT CORD	01	1.3
SMOKING	01	1.3

Patients who had hypertension have maximum rate of abruption (50%).Most of them were associated with anemia and PIH .Hypertension was the etiological factor in different studies was 61.30% in Madras medical college 2012,35.74% in khan et al 2017,22.6% in Mukherjee and kaul al 2014,which indicates that hypertension is the most common cause oh Abruptio placenta .Other causes are PROM ,trauma ,hydromnios short cord ,smoking etc .

4 .LIVE BIRTH/STILL BIRTH

	CASES	PERCENTAGE
LIVE BIRTH	41	54.67
STILL BIRTH	34	45.33

55% had live birth, 45% had still born baby. Among them 1 died in early neonatal period due to prematurity .Fetal complications included hypoxia, anemia, growth restriction, prematurity, neurodevelopmental problems, prematurity and fetal death .Still birth in different studies was 61.39 in madras medical college 2012,44.89% in Khan et al 2017,32.1% in Mukherjee and kaul et al 2017,which shows that neonatal mortality is high in all studies.

5. COMPLICATIONS OF ABRUPTIO PLACENTA

COMPLICATION	CASES	PERCENTAGE
HYPOVOLUMIC SHOCK	20	21
PPH	12	16
DIC	3	5
PURPERAL SEPSIS	2	3
ARF	1	2

Percentage wise maternal complications are Hypovolumic shock 21%, PPH 16 %, DIC 5%, Purperial sepsis 3%, ARF 2%.Compared to other studies percentage of hypovolumic shock is 37.62% in Madras medical college 2012, 25.18 % in Khan et al 2017 and Percentage of PPH are 34.65% in Madras medical college 2012 and 23.72 % in Khan et al 2017.This comparison shows that hypovolumic shock and PPH are most common complications of Abruptio- placenta.

DISCUSSION AND CONCLUSION

Abruptio-placenta must be included among the most dangerous of obstetric complication for mother and infant .Most common in primi-gravida of low socio-economic status between 21-30 age group .Study suggest that hypertension is independent risk factor for Abruption(50%).Antenatal care which identifies the risk factors like hypertension plays an important role in decreasing the incidence of abruption placenta and improving the maternal and fetal outcome .It continues to be prime cause of fetal wastage ,with a total perinatal mortality rate between 30% and 60%.With improvements in obstetric and neonatal care ,overall perinatal mortality may be declining .Maternal complications have decreased because of improved techniques of blood storage and administration ,as well as central hemodynamic monitoring**.**

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