Original Research Article

Retrospective analysis of clinical outcome of placental abruption in GGH Kadapa

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Abstract

Objective: To determine the frequency obstetric risk factors, and the subsequent feto-maternal outcome in women suffering from placental abruption. **Methods**: Retrospective case series study in Dept. OF OBG, GGH, Kadapa from October 2020 to September 2021 whose gestational age crossed 24 weeks, data was collected from patient records, Variables included are age, gravida, antenatal care grade of abruption, associated complications like preeclampsia, anemia. The outcome assessed by mode of delivery, DIC, PPH, shock, ARF, preterm birth, intrauterine demise, stillbirth, NICU care. **Results**: Out of total Deliveries for 1 year in GGH Kadapa for the year October 2020 to September 2021 is 8747, Abruption cases are 46, gives a frequency of 0.5% of total deliveries. Out of all abruption cases, referred from the periphery were 6 in number, all others were unbooked cases. The majority of women (69.5%) were in between 20 to 30 years. The mean age was 27+/-5 years, the youngest was 19 years, and the oldest was 38 years ofage.70% were multigravida. 65% were delivered preterm before 37 completed weeks. The main mode of delivery was vaginal delivery (56.5%). The associated major risk factor was preeclampsia (63%).4.3% had PPH,4.3% went into ARF,8.6% had coagulation abnormalities,2.1 % went into shock,2.1% had liver enzyme alteration.43.5% had no fetal heart sounds at the time of admission.6.5% died after birth due to birth asphyxia. **Conclusion:** Abruption is an obstetric emergency. Frequency of abruption placenta is alarminghigh with adverse maternal and fetal outcome.

Keywords: Abruption placenta, Maternal outcome, Vaginal delivery, Gravida, asphyxia.

Introduction

Abruption placenta is an absolute obstetric emergency that needs prompt diagnosis and treatment. Abruption placenta is defined as uterine bleeding from premature Separation of placenta after 20 weeks of gestation Etiology remains unknown, risk factors implicated advanced Maternal age, High Parity, low socioeconomic status, associated preeclampsia, multiple gestations, smoking, chronic hypertension[1-2]. All the blood loss takes place is only from the mother. Maternal complications are based on the grade of abruption, Complications like shock, DIC, acute renal failure, PPH, maternal morbidity and mortality, fetal effects are based on the grade of abruption, gestational age. complications like preterm, IUD, stillbirth, fetal distress need for neonatal ICU care, and perinatal death[1-3].

Methods

Retrospective case series study in Dept. OF OBG, GGH, Kadapa. The study period is from October 2020 to September 2021. Deliveries in this 1 yearstudy period were 8747.

The cases were those who were identified with a clinical diagnosis of abruption in the current pregnancy, data was taken from the records who delivered in GGH Kadapa.

All the singleton pregnancies with the clinical diagnosis of abruption whose gestational age crossed 24 weeks wereincluded.

Demographic variables included were age, gravida, antenatal care grade of abruption, associated complications like Anemia, Preeclampsia.

Clinical variables included were maternal blood pressure, laboratory variables included were complete blood picture, coagulation profile. The outcome assessed by mode of delivery, DIC, PPH, shock, ARF to mother, preterm birth, intrauterine demise, stillbirth, NICU care, perinatal morbidity andmortality.

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Results

In this retrospective study from October 2020 to September 2021, a total of 8747 deliveries were conducted, out of whom 46 cases wereidentified as abruption placenta which constitutes 0.5%.

Table 1: Shows demographic characteristics of cases

	Variable	Cases
1	Maternal age	
	< 20	3
	20 – 30	32
	>30	11
2	Gravida	
	1	11
	2	16
	>3	19
3	Risk factors PreeclampsiaAnemia<7 TABLE 1	29 44

The majority of women (69.5%) were in between 20 to 30 years. The meanage was 27+/-5 years, the youngest was 19 oldest was 38 years ofage.70% were multigravida.

Table 2: maternal outcome

S.NO	Out come	Cases
1	Mode of delivery a. Vaginal Delivery	 26(56.5%)
	b. C- Section PriorLSCS Fetaldistress Breech with uterine anomaly	20(43,5%) 6(30)% 12(60%) 2(10%)
2	PPH	2(4.3%)
3	Acute Renal failure	2(4.3%)
4	Coagulation abnormality	4(8.6%)
5	Shock	1(2.1%)
6	Altered liver functionTest	1(2.1%)

The main mode of delivery was vaginal delivery (56.5%). The associated major risk factor was preeclampsia (63%).4.3% had PPH,4.3% went into ARF,8.6% had coagulation abnormalities,2.1 % went into shock,2.1% had liver enzyme alteration

Table 3 gives the outcome regarding fetus

S.NO	Out come	Cases
1	Gestational age 24 to 30 30 to 36 >37	 13(28.2%) 17(36.9%) 16(8.6%)
2	SNCU Admission	6(13.6%)
3	Still birth	1(2.1%)
4	IUD	20(43.4%)
5	Neonatal Death	3(6.5%)

43.4% pregnancies ended in IUD, 2.1% in stillbirth, 6.5 % in neonatal deaths

Discussion

This study was done at the tertiary center which receives patients from peripheries

Literature shows 1% of cases were abruption.in our study 0.5%of total cases were abruption. Earlier nath et al[2] shows3.75%, Sarwar et al[1] shows 4.4% similar high rates seen in the middle east. Compared to them incidence is way less innumbers

In our study majority age didn't show any significance as the majority were between the ages of 20- 30 years, whereas studies from developed countries taken age more than 35 is arisk factor.

Multiparity had effect in our study but previous study by Nath et al [2] don't show significant effect Gestational hypertension was seen 29% in my study population. Previous studies by Nath et al[2] of 10% of pre eclampsia.

Table-2 also shows the HB less than 7 in 44 people This reflects poor nutritional status of our population. In another study from Asia, decreased body mass index, again reflecting poor nutritional status was found as an etiologic factor for AP.

Majority of our women (56.5%) had vaginal delivery, followed by Caesarean section in 43.5%. In study by Tikkanen et al[3] Caesarean section rate was as high as 91%. in the study by Nath et al [2] Caesarean Section was 49.9% similar to my study.

4.3% had sever PPH, 4.3% had ARF Coagulopathy is seen in 8.6%, along with concealed haemorrhage. Sock was seen in 2.1% Perinatal mortality has been strongly associated with abruption placenta in both local and international literature. In one study from middle east, there were a total of 54 (65%) foetal deaths. Statistical analysis in our study showed significant association with gestational age. Increased perinatal mortality was seen with Preterm Gestation.

In my study only 65.21% were delivered preterm 43.4% were IUD 2.1% were still birth

6.5% had died in neonatal period were as in study by Nath et al[2] shows 65% were IUD, 67% having Perinatal mortality. Abruptio placenta is a catastrophic obstetrical condition; Prevalence of this disease is higher inour set-up, though.

No definite etiological factor has been identified; Alarming figures when compared to developed countries, noted in India. Non utilization of prenatal services is the most common cause of abruption[4, 5, 6].

Counseling on need for iron and folic acid, anemia, PIH, DM is needed. Detection and correction of associated risk factors helps in prevention. Most of the patients in our study are anemic, multiparous ,60%patients have pre-eclampsia as a risk factor.56% were delivered vaginally,46% underwent c - section .4.3% cases landed in PPH, 4.3% landed in acute renal failure, 8.65% have coagulation abnormality 2.1% landed in shock and 2.1% have altered liver enzymes. 43.4% pregnancies ended in IUD, 2.1%in still birth, 6.5%in neonatal deaths.

Conclusion

Abruption is an obstetric emergency. Frequency of abruption placenta is alarming high with adverse maternal and fetal outcome. Multi parity, booked status, low socioeconomic status, maternal anemia preeclampsia are risk factors. Early intervention, expeditious delivery, Safe motherhood practice will help to prevent Abruption or adverse outcomes.

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References

1. Sarwar I, Abbasi AN, Islam A. Abruptio placentae and its complications at Ayub Teaching Hospital Abbottabad. J Ayub Med Coll Abbottabad 2006; 18: 27-31.
2. Nath CA, Ananth CV, Smulian JC, Shen-Schwarz S, Kaminsky L, New Jersey-Placental Abruption Study Investigators. Histologic evidence of inflammation and risk of placental abruption. Am J Obstet Gynecol 2007; 197: 319 e1-6.
3. Tikkanen M, Nuutila M, Hiilesmaa V, Paavonen J, Ylikorkala O. Clinical presentation and risk factors of placental abruption. Acta Obstet Gynecol Scand 2006; 85: 700-5.
4. Toivonen S, Heinonen S, Anttila M, Kosma VM, Saarikoski S. Obstetric prognosis after placental abruption. Fetal Diagn Ther 2004; 19: 336-41.
5. Hung TH, Hsieh CC, Hsu JJ, Lo LM, Chiu TH, Hsieh TT. Risk factors for placental abruption in an Asian population. Reprod Sci 2007; 14: 59-65.
6. Kramer MS, Usher RH, Pollack R, Boyd M, Usher S. Etiologic determinants of abruptio placentae. Obstet Gynecol 1997; 89: 221-6.

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