



TO STUDY COMPLICATIONS IN THE THIRD STAGE OF LABOR ASSOCIATED WITH ABRUPTIO PLACENTAE IN MATERNAL CASES IN SOUTHINDIA

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ABSTRACT

Abruptio placentae, a serious obstetric complication characterized by the premature separation of the placenta, presents a myriad of challenges during pregnancies, particularly in the critical phase of the third stage of labor. This study focuses on elucidating the maternal obstacles encountered in pregnancies complicated by abruptio placentae during the third stage of labor. A comprehensive analysis was conducted on a cohort of cases involving 8991 deliveries, where abruptio placentae was observed in 89 instances, accounting for 0.9% prevalence. Demographic factors, including age and parity, were examined, revealing a concentration of cases in the 21-30 years age group (46% in 21-25 years) and a higher prevalence in multiparous women (76.4%). Antenatal risk factors such as anemia, preeclampsia, previous cesarean, abortion, and Rh-negativity were identified. The mode of delivery played a pivotal role, with 62.9% undergoing cesarean section, reflecting the clinical complexities associated with abruptio placentae. Vaginal delivery was observed in 37% of cases, emphasizing its feasibility in certain situations. Complications in the third stage of labor, including atonic postpartum hemorrhage, hemorrhagic shock, Couvelaire uterus, coagulopathy, postpartum eclampsia, and maternal mortality, were observed in varying percentages, highlighting the multifaceted challenges faced by mothers. This study sheds light on the intricate interplay between maternal health, obstetric factors, and the clinical management of abruptio placentae during the third stage of labor. The findings underscore the need for tailored approaches to address these challenges and improve maternal outcomes. Further research and clinical strategies are warranted to enhance our understanding and refine interventions in managing abruptio placentae in this critical phase of labor.

Keywords :- Abruptio Placentae, Third Stage of Labor, Maternal Health, Obstetric Complications, Pregnancy.

Access this article online		
Home Page: www.mcmed.us/journal/abs	Quick Response code 	
Received:25.02.2015	Revised:12.03.2015	Accepted:15.03.2015

INTRODUCTION

The maternal well-being during pregnancies complicated by abruptio placentae, particularly in the context of the third stage of labor, is a critical area of concern in obstetric care. Abruptio placentae, characterized by the premature separation of the placenta from the uterine wall, poses substantial risks to both

maternal and fetal health [1-3]. As the third stage of labor unfolds, the potential obstacles and challenges faced by mothers in this scenario become increasingly apparent. Defined as the premature separation of a normally implanted placenta, this condition occurs with an incidence ranging between 0.49% to 1.8% [4].

Abruptio placentae is associated with a range of complications, including atonic postpartum hemorrhage, hemorrhagic shock, Couvelaire uterus, coagulopathy, postpartum eclampsia, and, in extreme cases, maternal mortality. The unique circumstances of abruptio placentae pregnancies in the third stage of labor demand focused attention, as managing these complications requires a nuanced understanding of the intricate interplay between maternal physiology, obstetric factors, and the clinical decisions surrounding delivery [5-6].

This introduction aims to explore the maternal obstacles encountered in pregnancies complicated by abruptio placentae during the third stage of labor. By delving into the specific challenges faced by mothers in this critical phase, we seek to enhance our understanding of the complexities involved in the management of abruptio placentae and pave the way for improved clinical strategies and interventions to safeguard maternal health and well-being.

MATERIAL AND METHODS

The research conducted within the Department of Obstetrics and Gynaecology at SLIMS spanned one year, focusing on cases with gestation of 28 weeks or more that presented with antepartum hemorrhage. All eligible cases during this period were included in the study. Upon admission, a comprehensive assessment was undertaken, encompassing a thorough examination of the patient's history, general physical condition, abdominal state, routine tests, ultrasonography, as well as per speculum and vaginal examinations.

Inclusion criteria involved singleton pregnancies with a gestational age of 20 weeks or beyond, while exclusion criteria comprised multiple pregnancies and placenta previa. Various factors impacting the mother, such as age, parity, gestational age

at admission, history of drug misuse, and previous obstetric experiences, including instances of placental abruption in prior pregnancies, were verified. Additionally, investigations were conducted into issues like preterm labor, premature rupture of membranes, persistent hypertension during pregnancy, and other pertinent obstetric concerns [7-8].

RESULTS

The total number of deliveries during the study period were 8991. Abruptio placenta was observed in 89 cases accounting for a prevalence of 0.9%. The maximum incidence of abruptio placentae was in the age groups 21- 30 years. Out of 89 cases, 41 (46%) cases belonged to the 21-25 years age groups and 25 (28%) cases belonged to 26-30 years of age groups. 32 (35.9%) cases were booked and 57 (64%) were unbooked. The incidence of abruptio placentae was more common in multipara 68 (76.4%) than in primipara 21(23.5%). 25 (28%) cases were in between 28-32 weeks period of gestation, 48 (53.9%) at 32-36 weeks and 16 (17.9%) at >36 weeks gestational age. Associated antenatal risk factors observed were anemia 37 (41.5%), preeclampsia 24 (26.9%), previous caesarean 13 (14.6%), previous abortion 12 (13.4%) and Rh negative pregnancy 3 (3.3%).

Regarding the mode of delivery, most of the patients with abruption were delivered by caesarean section 56 (62.9%) as compared to 33 (37%) who were delivered vaginally. Regarding the incidence of third stage of labour complications, out of 89 cases, 4(4.4%) had atonic post partum haemorrhage, 2 (2.2%) had haemorrhagic shock, 19 (21.3%) had Couvelaire uterus, 4 (4.4%) had coagulopathy, 5 (5.6%) had post partum eclampsia and 2(2.2%) had maternal mortality.

Table 1: Demographic, obstetric risk factors and mode of delivery associated with placental abruption.

	Number of cases	Percentage
Age		
<21	12	13.4
21-25	41	46%
26-30	25	28%
31-35	6	6.7%
>35	5	5.6
Parity		
Primi	21	23.5%
Multi	68	76.4%
Gestational Age(In Weeks)		
28-32	25	28%
32-36	48	53.9%
>36	16	17.9%
Associated Risk Factors		
Anemia	37	41.5%

PHI	24	26.9
Previous Abortion	12	13.4
Rh negative	3	3.3
Mode Of Delivery		
caesarean section	56	62.9
Delivered vaginally	33	33.3

Table 2: Incidence of complications in the third stage of labour in abruption placentae.

Complications	Number of cases	Percentage
	4	4.4%
Couvellaire uterus	19	21.3%
Haemorrhagic shock	2	2.2
Coagulopathy	5	21.3
Post partum eclampsia	5	21.3
Maternal mortality	2	2.2

DISCUSSION

The data from this study, involving a total of 8991 deliveries, reveals a prevalence of abruptio placenta in 89 cases, accounting for 0.9% of the total deliveries. A closer examination of the demographics sheds light on noteworthy trends and associations. The age group with the highest incidence of abruptio placenta was 21-30 years, particularly with a concentration in the 21-25 years range, representing 46% of the cases. Unbooked cases constituted the majority at 64%, emphasizing the importance of antenatal care [9-13].

The 4.4% incidence rate of abruptio placenta observed in our study is much higher than the 0.5-1% incidence rate of abruptio placenta reported in American, European, and east Asian populations (Pariente G 2011 et al and Ananth CV 2005 et al.). The analysis of parity demonstrated a higher prevalence of abruptio placenta in multiparous women (76.4%) compared to primiparous women (23.5%). Additionally, the gestational age at which abruptio placenta occurred varied, with a substantial portion (53.9%) occurring between 32-36 weeks [14-16]. The association of certain antenatal risk factors with abruptio placenta is evident, with anemia, preeclampsia, previous cesarean, previous abortion, and Rh-negative pregnancy identified in varying proportions [17-19].

The mode of delivery played a crucial role, with 62.9% of patients undergoing caesarean section, highlighting the clinical management challenges associated with abruptio placenta [20-22]. In study by

Tikkanen et al, Caesarean section rate was as high as 91%. Vaginal delivery accounted for 37%, suggesting that a significant number of cases allowed for this mode of delivery. Maternal mortality in present series was 1.49%. Maternal death in ante partum haemorrhage Quoted by Dutta's (2011) < 1 to as high as 5% and according to william (2007) it is 1-3% of total delivery.

The incidence of complications in the third stage of labor among cases of abruptio placenta is noteworthy [23]. Atonic postpartum hemorrhage, hemorrhagic shock, Couvellaire uterus, coagulopathy, postpartum eclampsia, and maternal mortality were observed in varying percentages. Couvellaire uterus, coagulopathy, and postpartum eclampsia each affected more than 20% of cases, emphasizing the multi-faceted challenges associated with abruptio placenta [24-28].

CONCLUSION:

This study provides a comprehensive insight into the demographic and obstetric factors associated with abruptio placenta, shedding light on the prevalence, age distribution, risk factors, mode of delivery, and complications in the third stage of labor. The findings underscore the complexity of managing abruptio placenta and emphasize the importance of early detection and appropriate clinical intervention to improve maternal and fetal outcomes. Further research and clinical strategies may be warranted to address the specific challenges identified in this study..

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Cite this article:

Prabhakar Reddy E, Antony Zacharias K.T. (2015). To Study Complications in the Third Stage of Labor Associated with Abruptio Placentae in Maternal Cases in Southindia. *Acta Biomedica Scientia*, 2(4):334-338.



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