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Research Article

POSTPARTUM HEMORRHAGE, AFFECT THE MOTHER AND HER NEONATES

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Abstract:

Background: Postpartum haemorrhage would affect mother and her neonates.

Objective: To determine outcome of mothers presenting with PPH in a tertiary care hospital.

Methodology: This was cross sectional study conducted in Sheikh Zayed Hospital, Rahim Yar Khan from April to May 2018 on 76 mothers presenting in Gynaecology and obstetrics ward with postpartum hemorrhage.

Results: Regarding maternal outcome, out of 76, 31 (48.8%) mothers were healthy and alive, 7 (9.2%) were admitted in ICU, 29 (38.2%) went into shock and 9 (11.8%) died. Our study showed mode of delivery had no significant effect on maternal mortality or morbidity. Similarly history of ANC don't have any significant effect on maternal outcome.

Conclusion: This study showed that mothers with postpartum haemorrhage (PPH) faced complications like shock, ICU admission and even death. Mode of delivery and history of ANC has no significant association with maternal outcome.

Keywords: PPH, maternal outcome of PPH, Mortality, Morbidity.

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INTRODUCTION:

Postpartum hemorrhage is defined as excessive bleeding of more than 500 ml or more following normal vaginal delivery or 1000 ml or more following cesarean within 24 hr after the delivery of baby. [1,3] Postpartum hemorrhage is the major cause of maternal morbidity and mortality, accounting for about one third of all pregnancy related deaths in Africa and Asia . The incidence of Postpartum hemorrhage in observational studies is 6%. [1] The incidence of postpartum hemorrhage continues to rise progressively in UK , reaching as high as 13.8% in 2012 – 2013. [4] The worldwide prevalence of postpartum hemorrhage is 6%.[9] Severe morbidities associated with Postpartum hemorrhage include anemia , Disseminated intravascular coagulation, blood transfusion, hysterectomy , renal and liver failure. Only about one third of cases have identifiable risk factors . These are believe to include: a history of prior Postpartum hemorrhage; nulliparity; overdistended uterus; placental abnormalities such as placenta previa ;Placenta accrete; coagulation abnormalities ;anemia ;induction of labor ;augmentation of labor ;use of an epidural and prolonged labor. Common causes of postpartum hemorrhage are uterine atony, genital tract injuries, failure of the blood coagulation system and trauma. Uterine atony is the most common cause of Postpartum hemorrhage. [2,3,9,10] It is well recognized that appropriate obstetrics management (in particular, active management of 3rd stage of labor) and access to blood transfusion and , If necessary, hysterectomy , can prevent mortality and severe morbidity once Postpartum hemorrhage occurs .[10] The prophylactic administration of a uterotonic has been shown to reduce the incidence of Postpartum hemorrhage through inducing uterine contraction. Oxytocin is considered gold standard for prophylaxis, although ergometrine, methergine, and misoprostol are also frequently used. When uterine atony occurs, the timely administration of a uterotonic drug is recommended. Uterotonic treatment can help prevent the need for more sophisticated interventions , such as the administration of intravenous fluid ,additional drug therapy, blood transfusion , and surgical interventions.[1,2]Although Postpartum hemorrhage occurs in all settings and all geographic regions ,the majority of maternal deaths as a result of Postpartum hemorrhage take place in developing countries .This disparity has been attributed to differences In quality of care , including the availability of trained personnel

attending deliveries , access to quality uterotonic drugs ,and the timely receipt of needed interventions when obstetric emergencies arise[1,2,3] Yet disparities in severe maternal outcomes (SMOs) also occurs within higher level facilities . In the recent World Health Organization Multicounty survey that documented the incidence of maternal Morbidity and mortality at health facilities globally, Postpartum hemorrhage accounted for 27% of all deliveries with an SMO.[1]

OBJECTIVE

The objective of this study was to explore the maternal outcomes associated with Postpartum hemorrhage.

METHODOLOGY:

This cross sectional study was conducted in Sheikh Zayed Medical College / Hospital Rahim yar khan from 1st April to 31st May 2018.Study participants were all the Mothers admitted in Gyneacology and Obstetrics after delivery . A total of 94 mothers were randomly selected. A pre-designed, pre tested questionnaire was used to record different variables that included demographics as well as information relevant to the objective of study such as supplement intake, frequency of ultrasound examinations history of antenatal care, risk identified history of obstructed labor in previous pregnancies and maternal outcomes. All the participants were informed clearly about the nature and purpose of study And informed verbal consent was taken for inclusion in study. Study participants were assured of anonymity. data was entered in statistical package for social sciences (SPSS version 20). Measure of central tendency of numerical data like age ,monthly income and frequency of ultrasound was carried out and presented as mean and standard deviation. Qualitative variables like maternal outcome was presented as percentage. Pi square test was applied to compare categorical Variable. P value of less than 5% was taken as significant.

RESULTS:

Our study showed that mean age was 32 years, mean monthly income was 24302 and mean frequency of ultrasound examination was 2.1 Our study showed that 38(50%) mothers were illiterate,4(5.3%) had primary education,22(28.9%) had matric and 12(15.8%) had fsc and above education whereas, 26 (34.2%) husbands were illiterate,4 (5.3%) had primary,22 (28.9%)had matric and 24 (31.6%)had fsc and above education. Results showed that 40 (52.6%) had SVD, 44.7% c section and 2.6% had assisted delivery.

History of ANC

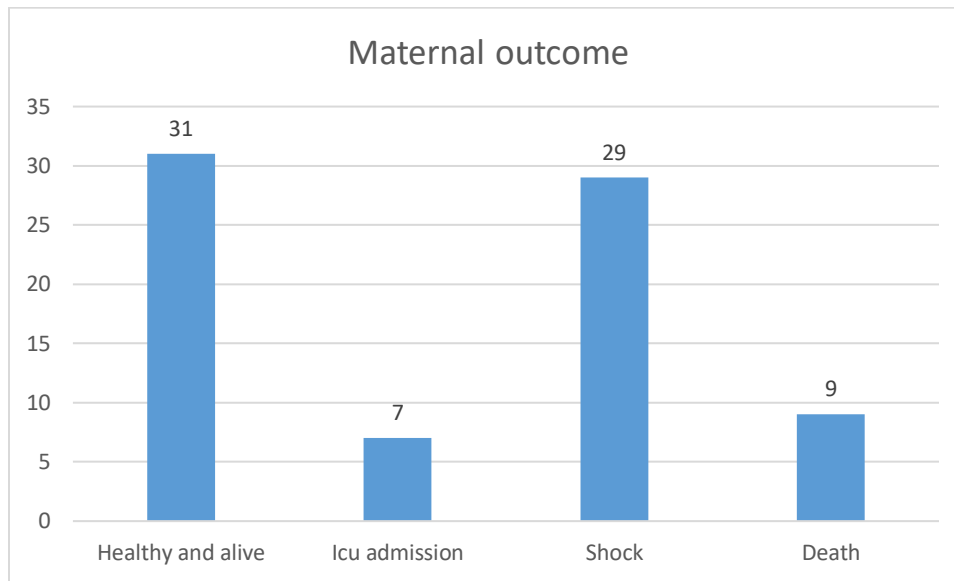
Variables	Frequency	Percent
History of ANC		
Yes	61	80.3
No	15	19.7
USG		
Yes	60	78.9
No	16	21.1
Risk identified during ANC		
PIH	14	18.4
Placenta previa	5	6.6
malpresentation	6	7.9
No risk	51	67.1
History of supplement intake		
Yes	34	44.7
No	42	55.3
History of obstructed labor		
Yes	15	19.7
No	61	80.3
History of c-section		
Yes	25	32.9
No	51	67.1

Table shows 61 (80.3%)had antenatal visits and15 (19.7%)had no antenatal visits, 78.9% had history of USG nad 21.1% had no USG, 14(18.4%) had history of PIH,5(6.6%)had placenta previa,5(7.9%)were with malpresentation and51(67.1%) had no risk. 34 (44.7%) had history of supplement intake and42(55.3%)were without supplement intake,15 (19.7%) had history of obstructed labour and 61 (80.3%)had no such history, 25 (32.9%) had c-section and 51 (67.1%)had no history of c-section.

Maternal outcome

Variables	Frequency	Percent
Maternal outcome		
Healthy and alive	31	40.8
Icu admission	7	9.2
Shock	29	38.2
Death	9	11.8
Neonatal outcome		
Healthy and alive	57	75.0
Icu admission	3	3.9
Death	16	21.1

Table shows 31 (48.8%) mothers were alive, 7 (9.2%) had ICU admissions, 29 (38.2%) presented with shock and 9 (11.8%) were dead.



Neonatal outcome

Table shows 57 (75% neonates) were healthy, 3 (3.9%) had ICU admission and 16 (21.1%) were dead.

History of ANC*Mode of delivery * maternal outcome

Mode of delivery	Maternal Outcome (p=0.116)				Total	P-value
	Healthy and alive	ICU admission	Shock	Death		
SVD	13 (32.5%)	2 (5.0%)	21 (52.5%)	4 (10.0%)	40 (100%)	0.116
C-section	16 (47.1%)	5 (14.7%)	8 (23.5%)	5 (14.7%)	34 (100%)	
Assisted delivery	2 (100%)	0 (.0%)	0 (.0%)	0 (.01%)	2 (100%)	
Total	31 (40.8%)	7 (9.2%)	29 (38.2%)	9 (11.8%)	76 (100%)	
History of ANC	Maternal outcome (p=0.091)				TOTAL	P-value
	Healthy and alive	ICU Admission	shock	Death		
YES	27 (44.3%)	7 (11.5%)	22 (36.1%)	5 (8.2%)	61 (100.0%)	0.091
NO	4 (26.7%)	0 (0.0%)	7 (46.7%)	4 (26.7%)	15 (100.0%)	

Table shows that in 40 (100%) delivered via SVD 13 (32.5) were healthy and alive 2 (52.5%) were admitted in ICU 21(52.5%) went in shock 4 (10.0%) were dead In 34 (100%) undergone C-section 16 (47.1%) were healthy and alive

5(14.7%) were admitted in ICU 8(23.5%) went in shock 5(14.7%) were dead In 2(100%) undergone assisted delivery 2(100%) were healthy and alive 0(0%) were admitted in ICU or went in shock or dead

History of ANC*Mode of delivery * neonatal income

Mode of delivery	Neonatal outcome (p=0.309)			Total	P-value
	Healthy and alive	ICU admission	Death		
SVD	32 (80.0%)	0 (0.0%)	8 (20.0%)	40 (100/0%)	0.309
C-section	23 (67.6%)	3 (8.8%)	8 (23.5%)	34 (100.0%)	
Assisted delivery	2 (100.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	
TOTAL	57 (75.0%)	3 (3.9%)	16 (21.1%)	76 (100%)	
History of ANC	Neonatal outcome (p=0.599)			TOTAL	P-value
	Healthy and alive	ICU admission	Death		
Yes	46 (75.4%)	3 (4.9%)	12 (19.7%)	61 (100%)	0.599
No	11 (73.3%)	0 (.0%)	4 (26.7%)	15 (100%)	

Table shows that in 40(100%) neonates delivered via SVD 32 (80%) were alive and healthy 0 (.0%) were admitted in ICU and 8 (20.0%) were dead In 34(100.0%) neonates delivered via C-section 23(67,6%) were healthy and alive 3(8,8%) were admitted in ICU and 8(23,5%) were dead In 2 (100%) neonates delivered via assisted delivery 2 (100.0%) were alive and healthy 0(0.0%) admitted in ICU and 0(0.0%) were dead.

history of anc * maternal outcome

Table shows that in 61(100.0%) mothers with ANC 27 (44.3%) were alive and healthy 7(11.5%) admitted in ICU 22(36.1%) went into shock and 5(8.2%) were dead In 15(100%) mothers without ANC 4 (26,5%) were alive and healthy 0(0,0%) admitted in ICU 7(46.5%) went into shock and 4 (26.7%) were dead.

Table shows that in 61(100%) neonates whose mothers took ANC 46 (75.4%) were alive and healthy 3 (4.9%) admitted in ICU and 12(19.7%) were dead In 15 (100%) neonates without ANC 11(73.3%) were alive and healthy 0 (0%) were admitted in ICU and 4 (26,7%) were dead.

DISCUSSION:

This study was conducted to assess maternal outcome among postpartum hemorrhage cases. In this study mean age was 32±5 years, mean monthly income was

24302 and mean frequency of ultrasound examination was 2.1 In another study mean age was 27.7(SD 6.9) mean gestational age was 38.6 weeks. [3] Our study showed that 38(50%) mothers were illiterate, 22(

5.3%) had primary education, 22 (28.9%) had matric and 12 (15.8%) had fsc and above education whereas, 26 (34.2%) husbands were illiterate, 4 (5.3%) had primary, 22 (28.9%) had matric and 24 (31.6%) had fsc and above education. Results showed that 40 (52.6%) had SVD, 44.7% c section and 2.6% had assisted delivery. In other study three quarters of cases (75.7%) of cases has SVD. [3] In other study 54.7% of cases had SVD and 36.4% had assisted delivery and 7.8% delivered via c-section. [4] Our study shows that 61 (80.3%) had antenatal visits and 15 (19.7%) had no antenatal visits. This study showed that 78.9% had history of USG and 21.1% had no USG.

Our study shows that 14 (18.4%) had history of PIH, 5 (6.6%) had placenta previa, 5 (7.9%) were with malpresentation and 51 (67.1%) had no risk. In other studies majority of cases (77%) has identifiable risk factor for postpartum hemorrhage. [3] Other study shows multiple pregnancy, c-section deliveries and delivering a macrosomic child as identifiable risk factors [9] Our study shows that 34 (44.7%) had history of supplement intake and 42 (55.3%) were without supplement intake. Our study shows that 15 (19.7%) had history of obstructed labour and 61 (80.3%) had no such history. Other study shows that majority of (77%) has history of pregnancy induced hypertension followed by obstructed labour. [3] Our study shows that 25 (32.9%) had c-section and 51 (67.1%) had no history of c-section.

In other study three quarters of cases (75.7%) had SVD [3]. In other study 54.7% of cases had SVD and 36.4% had assisted delivery and 7.8% delivered via c-section. [4]

In our study 31 (48.8%) mothers were alive, 7 (9.2%) had ICU admissions, 29 (38.2%) presented with shock and 29 (11.8%) were dead. In other study majority of cases (94.4%) survived the condition and 5.4% died. [3] Our study shows 57 (75% neonates) were healthy, 3 (3.9%) had ICU admission and 16 (21.1%) were dead.

Mode of delivery * maternal outcome

Our study shows that in 40 (100%) delivered via SVD 13 (32.5%) were healthy and alive 2 (5.2%) were admitted in ICU 21 (52.5%) went in shock 4 (10.0%) were dead. In other study 10.9% SVDs had standard postpartum hemorrhage and 1.86% SVDs had severe postpartum hemorrhage. In 34 (100%) undergone C-section 16 (47.1%) were healthy and alive 5 (14.7%) were admitted in ICU 8 (23.5%) went in shock 5 (14.7%) were dead In 2 (100%) undergone assisted delivery 2 (100%) were healthy and alive 0 (0%) were admitted in ICU or went in shock or dead

Mode of delivery * neonatal income

Table shows that in 40 (100%) neonates delivered via SVD 32 (80%) were alive and healthy 0 (0%) were admitted in ICU and 8 (20.0%) were dead. In 34 (100.0%) neonates delivered via C-section 23 (67.6%) were healthy and alive 3 (8.8%) were admitted in ICU and 8 (23.5%) were dead. In 2 (100%) neonates delivered via assisted delivery 2 (100.0%) were alive and healthy 0 (0.0%) admitted in ICU and 0 (0.0%) were dead.

history of anc * maternal outcome

Table shows that in 61 (100.0%) mothers with ANC 27 (44.3%) were alive and healthy 7 (11.5%) admitted in ICU 22 (36.1%) went into shock and 5 (8.2%) were dead. In 15 (100%) mothers without ANC 4 (26.5%) were alive and healthy 0 (0.0%) admitted in ICU 7 (46.5%) went into shock and 4 (26.7%) were dead.

history of anc * neonatal income

Table shows that in 61 (100%) neonates whose mothers took ANC 46 (75.4%) were alive and healthy 3 (4.9%) admitted in ICU and 12 (19.7%) were dead. In 15 (100%) neonates without ANC 11 (73.3%) were alive and healthy 0 (0%) were admitted in ICU and 4 (26.7%) were dead.

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