

POSTPARTUM HEMORRHAGE (PPH)

A MAJOR KILLER OF WOMEN

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ABSTRACT

OBJECTIVES: 80 cases of PPH were analyzed retrospectively to assess the risk factor association, mode of treatment and outcome. **STUDY DESIGN:** Retrospective study. **PERIODS:** 02 years, from June 1999 to May 2002. **SETTING:** Peoples Medical College Hospital, Nawabshah. **PATIENTS & METHODS:** 180 cases of PPH were analyzed, keeping in view their age, parity, booking status, mode, type and place of delivery. The efficacy of obstetric care was assessed by maternal morbidity and mortality related to PPH and its treatment. **RESULTS:** Out of 180 patients with PPH, 117 (65 %) were referred cases while 63 (35 %) were delivered at PMCH Nawabshah. Risk factors identified were increasing maternal age, grand multi parity, lack of antenatal care, operative and instrumental deliveries. Underlying pathology was uterine atony 68.33 %, retained product of conceptions 20.55 %, GT. injuries 8.33 % and D.I.C 2.77 %. Out of 180 patients, 71.11 % patients gave response to medical treatment, 20.55 % needed evacuation of uterus. Uterine packing done in 15.55 % of cases and simple repair of GT. injuries done in 6.66 %. Obstetrical hysterectomies account for 10 % of cases. Complications in operated patients were paralytic ileus in 6.66 %, chest infection 5.55 %, DVT in 1.11 % and pelvic infection in 5.55 % patients. During study period, 72 maternal deaths occurred and PPH contributed 31.94 % of it. **CONCLUSION:** The study revealed that an effective ante, intra and postpartum care, blood bank facilities and an alert action by Obstetric team are very important in prevention of mortality and mobility of this challenging problem. Training of resident surgeons and early involvement of skilled and senior personnel are needed to eliminate the substandard care and to reduce the large number of abdominal hysterectomies which were carried out in present series.

KEYWORDS: PPH. Risk Factors, Mortality.

INTRODUCTION

Obstetrical hemorrhage is the commonest cause of maternal death in developing countries¹, including

Pakistan^{2,3}, Postpartum hemorrhage (PPH) contributes the major share⁴.

Around 25,000 to 30,000 women die each year in

Pakistan due to pregnancy and child birth related complications^{4,5}. The leading cause of maternal death are quite uniform, multiple, interrelated and mostly preventable⁶. PPH itself account for 25 % of maternal deaths globally⁷.

Postpartum hemorrhage is defined as "blood loss of > 500 ml within 24 hours of delivery of the infant⁸" or according to ACOG "a haematocrit drop of 10 % or a hemorrhage that require blood transfusion⁹".

The consequences of PPH depend upon the health status of pregnant woman. While, a mild hemorrhage of 500 - 800 ml may not be serious for a healthy well nourished mother but it can lead to disastrous consequences among women with anaemia, dehydration, PIH and woman of small stature¹⁰. The diagnosis of PPH, therefore, remains a subjective clinical assessment that include any amount of blood loss that threatens woman's haemodynamic stability.

The causes of PPH include uterine atony (> 90 %)retained tissue, genital tract trauma and coagulopathy^{11,12,13}.

PPH is a sudden potentially life threatening event, unusual and frequently unpredictable in its occurrence¹⁴, kills the women within hours¹⁵. It is a preventable malady under ideal circumstances among them are identification of high risk group, active management of 3rd stage of labour^{16,17}, early detection of problem and its appropriate management. The most precious aspect of the problem is the early recognition. A recent study reveal that just over 10 % of women with PPH are accurately diagnosed¹⁸.

PATIENTS & METHODS

Peoples Medical College Hospital (PMCH) Nawabshah is a tertiary care hospital, having a single obstetrics unit and providing maternity care

to a large surrounding area, this retrospective study was conducted from June 1999 to May 2001. During this period, 180 patients were admitted with PPH. Out of those 180 patients, 117 were referred cases, while 63 patients were delivered at PMCH Nawabshah. All these patients were analyzed considerably their age, present and past obstetrics performance, booking status, mode and place of delivery.

In referred cases, diagnosis was based on history of profuse vaginal bleeding after delivery, a deteriorating maternal condition and need for blood transfusion. Active management of 3rd stage of labour is routine in an labour ward. 63 patients who underwent PPH, in those diagnosis was made on clinical ground as well as by measuring blood loss in calibrated receptacle.

Once patients diagnosed to be in PPH, Inj. Syntometrine administered I/V and Syntocinon infusion started. Vaginal examination i done to remove blood clots and uterine massage was done in cases of uterine atony. Intra rectal prostaglandin pessary used in selected cases.

Genital tract trauma and retained product of conceptions (RPOCs) were appropriately managed under anaesthesia. Intrauterine packing was done in patients with failed medical treatment. Hysterectomy was carried out once patients failed to gave response to above mentioned measures and in unstable patients.

Hysterectomy was preferred over vascular ligation as most of the time, patients were shocked and operator in expertise was also a factor.

A computerized database was used to analyzed different parameters. The efficacy of obstetrics, care was assessed by maternal morbidity and mortality related to PPH and its treatment.

RESULTS

Table-I. Characteristics of Patients presented with P.P.H		
Characteristics	No. Of Patients	% age
AGE		
15-19 years	13	7.22
20-26-9 years	45	27.22
30-34 years	52	28.88
35years & >	70	38.88
PARITY		
0-1	30	16.66
2-4	61	33.88
5 & >	69	49.44
BOOKING STATUS		
Booked	54	30
Non-booked	126	70
APH		
Placement previa		
Abruptio placenate		
MODE OF DELIVERY		
Vaginal delivery		
Instument delivery		
Caesarean section		
PLACE OF DELIVERY		
Home	52	28.88
Private Hospital	65	36.11
PMC Nawabshah	63	35

Out of 180 patients, 117 (65%) were referred cases and 63 (35%) deliveries at PMC Nawabshah.

Table-1 describes the characteristics of patients. The risk factors associated with PPH were

increasing maternal age 122 (67.77 %) > 30 years of age, multi parity 89 (49.44 %), non-booked status 126 (70 %) and operative & instrumental 106 (58%) deliveries.

Commonest underlying pathology were uterine atony 123 (68.33 %) followed by retained POCs 37 (20.55 %), genital tract injuries 15 (8.33 %) and DIG 5 (2.77 %) (Table-II).

Table-II. Different type of treatment modalities		
Treatment	No. of patients	% age
Uterine atony	123	68.33
RPOCs	37	20.55
Genital tract injuries	15	8.33
Coagulopathy	5	2.77

Table-III. Different type of treatment modalities		
Treatment	No. of patients	% age
Oxytocin infusion + Uterine massage	83	46.11
Bimanual uterine compression + intra rectal PGE ₂ pessary	45	25
Manual removal of RPOCs	37	20.55
Uterine packing	28	15.55
repair of G.T injuries	12	6.66
Hysterectomy	18	10
<i>Note: Some patients needs more than one type of treatment</i>		

Hemorrhage was controlled by oxytocin drug in 83 cases of uterine inertia (46.11 %), 45 (25 %) patients needs bimanual uterine compression with intra rectal PGE₂ administration. Evacuatiion of uterus was done in 37 (20.55 %) cases of retained POCs. Uterine packing was done in 28 (15.55 %) patients with failed medical treatment and successful in all cases. Obstetrical hysterectomy

was carried out in 18(10%) patients and simple repair in 12 (6.66 %) cases of genital tract inj was done (Table-III).

Complications	No. of patients	% age
Postoperative paralytic ileus	12	6.66
Chest infection	10	5.55
D.V.T	2	1.11
Pelvic infection	10	5.55
Death	23	12.77

Causes	No. of patients	% age
-Hemorrhage		
-PPH	23	31.94
-Abruptio placentae	4	5.55
-placent praevia	1	1.38
-Rupture uterus	6	8.33
-Rupture ectopic gestation	1	1.38
-Eclampsia	13	18.5
-Puerperial sepsis	10	13.88
-Septic abortion	6	8.33
-Pulmonary embolism	1	1.38
-Anaesthesia complication	2	2.77
-Other - Anaemic Cardiac Failure	2	2.77
Indirect Causes		
-Cardiac disease	2	2.77
Total	72	100

During the study period, 72 maternal deaths occurred and PPH contribute 31.94% of it (Table-V).

Discussion

Postpartum hemorrhage, inspite of marked improvement in management remains significant contributor to maternal mortality and morbidity. It accounts for 28% of maternal deaths in developing countries are no exception, ever with well equipped hospitals, PPH ranks the fourth commonest cause of maternal death¹³.

Risk factors evaluations shows an association with increasing maternal age, grand multi parity, lack of antenatal care, operative and instrumental deliveries. With increasing maternal age, changes in the connective tissue diminishes the ability of cervical, vaginal and perineal muscles to stretch during delivery, resulting in greater trauma to tissue, prolong labour and diminished uterine contractility after delivery⁶. The elevated risk associated with the grand multi parity found in this study is compatible with the finding of other studies^{20,21}.

Non- booked status of mother seriously effect her obstetrics performance as the clinicians are unaware of risk factors, but antenatal care alone is insufficient to prevent care at all levels of healthcare system, which will greatly reduce maternal mortality²².

The incidence of peripartum hysterectomy reported in literature various from 7-13 per 10,000 births^{23,24}. The review of treatment modalities showed in higher number of hysterectomies (10%), which is a rare event in modern obstetrics²⁵. In our setting , majority of patients come in extremis with marked anaemia and severe infection, along with substandard care, hysterectomy is the only resort to save their lives. Although peripartum hysterectomy is associated with increasing operative, psychological and menopausal morbidity but for

PPH, It remains a potentially life saving procedure in unavoidable catastrophes²⁶. During the study period, 72 maternal deaths occurred and the total number of live births were 4099 (MMR 17.56/1000). PPH is the commonest cause of maternal death (31.94%), almost consistent with other studies^{19,27,28}.

CONCLUSION

PPH remains one of the most challenging obstetrical problem, kills thousands of women each year globally. Which early recognition, prompt and appropriate intervention are the keys to minimize its impact. It needs an effective ante, intra and postnatal care, blood bank facilities and alert action by an enthusiastic obstetric team as it is the substandard care which is responsible for all fatalities²⁹.

The very high maternal mortality and a large number of hysterectomies in present series needs proper training of resident surgeons to eliminate substandard care with early involvement of senior personnel so to adopt less radical surgical procedures.

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thinking nobly.**

Rev. Dr. Edgar Tilton