



# MATERNAL MORBIDITY: ANALYSIS WITH MAJOR DEGREE OF PLACENTA-PREVI A IN WOMEN WITH PREVIOUSLY SCARRED UTERUS

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**ABSTRACT... Objective ...** To determine the frequency of maternal morbidity in patients with major degree of placenta previa in a previously scarred uterus. **Study Design:** Descriptive study. **Setting:** Department of Obstetrics and Gynecology Liaquat University of medical and Health Sciences, Jamshoro. **Period:** April 1<sup>st</sup> 2012 to Sep 30<sup>th</sup> 2012. **Methods:** The data was collected on pre-designed pro-forma by the researcher. Tools and techniques were analyzed through SPSS version 15. Results The Following results were drawn by the study: The mean age of enrolled participants was 32.5±4.7 years, mean parity was 3.8±1.4 and mean gestational age was 34.7±2.9 weeks. The frequency of morbidly adherent placenta was 23.7%, postpartum hemorrhage 21.9%, blood transfusion >4 47.2% and cesarean hystrectomy was 12.3% cases. **Conclusions:** It is concluded from this study that morbidly adherent placenta was 23.7%, postpartum hemorrhage 21.9%, blood transfusion >4 47.2% and cesarean hystrectomy was 12.3% cases.

**Key words:** Scarred uterus, postpartum hemorrhage, blood transfusions, cesarean hysterectomy.

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## INTRODUCTION

Placenta previa refers to a placenta that is situated wholly or partly in the lower uterine segment. It is associated with significant maternal and fetal morbidity and mortality because of blood loss and is one of the acute life threatening emergencies in the obstetrics.<sup>1</sup>

Rouse et al., revealed in a recent study of association between cesarean section and blood transfusion that repeat cesarean deliveries are linked with increased risk of blood transfusion in patient with placenta previa.<sup>2</sup>

The major risk of morbidly adhered placenta is uterine scar. The three degrees of adherence have been described accrete, increta, percreta, where the placenta adhere to or invade into or through the uterine wall because of abnormal development of decidua basalis.<sup>3</sup>

The incidence of placenta previa is variable depending on the population and background

cesarean rate, with rates from 0.4-0.8% reported.<sup>4</sup> Antepartum hemorrhage is major obstetrical problem. Although many studies are carried out worldwide including Pakistan, this study is conducting in our set up (Pakistan). My concern regarding this study is to reduce the morbidity associated with the major degree of placenta previa by early detection of the problem and to anticipate the problem associated with cesarean section and giving awareness to the women in whom their c/section is performed on their wish.

## SUBJECTS AND METHODS

This Descriptive Case study research was conducted in Department of Obstetrics and gynecology Liaquat University Hospital Hyderabad from April 1<sup>st</sup> 2012 to Sep 30<sup>th</sup> 2012. In patient (114) women of reproductive age group with gestational age more than 28 weeks were analyzed through Non probability purposive sampling method. The information was collected through pre designed pro-forma containing close ended questions. The data

was analysed through SPSS version 15.

Women, admitted in gynae unit II, fulfilling the inclusion criteria were recruited for the study (Inclusion criteria : Patients of any age with history of cesarean section having ultrasound diagnosis of placenta previa type III and IV ( showing that placenta covering the cervical so partially i-e type III or completely i-e type IV placenta previa. While for exclusion criteria: Gestational age < 28 week, abruptio placenta, patient with scar other than cesarean section).

Informed consent was taken. Gestational age at diagnosis and delivery was noted. The diagnosis of morbidly adherent placenta and cesarean hysterectomy was made as per operational definition.

Requirement of blood transfusion of >4 units was noted during surgery and in post-operative period. Estimated blood loss was noted during surgery, within 24 hours after surgery and during her stay in hospital. Patient was observed in the post-operative period for the follow up daily till discharge.

**RESULTS**

A total of 114 patients were studied in this research during study phase. The mean age of studied participants was 32.5±4.7 years (Graph 1), mean parity was 3.8±1.4 (Graph 2) and mean gestational age was 34.7±2.9 weeks (Graph 3).

The frequency of morbidly adherent placenta was 23.7%, postpartum hemorrhage 21.9%, blood transfusion > 47.2% and cesarean hysterectomy was 12.3% cases (Graph 4).

Morbidly adherent placenta	Age		Total
	30 years	>30 years	
Yes	12 (27.3%)	15 (21.4%)	27
No	32 (72.7%)	55 (78.6%)	87
Total	44	70	114

**Table-I. Stratification of morbidly adherent placenta by age**  
P-value: 0.47

Morbidly adherent placenta	Parity		Total
	Para 2	Para >2	
Yes	22 (27.8%)	5 (14.3%)	27
No	57 (72.2%)	30 (85.7%)	87
Total	79	35	114

**Table-II. Stratification of morbidly adherent placenta by parity**  
P-value: 0.0

PPH	Age		Total
	30 years	>30 years	
Yes	12 (27.3%)	13 (18.6%)	25
No	32 (72.7%)	57 (81.4%)	89
Total	44	70	114

**Table-III. Stratification of postpartum hemorrhage by age**  
P-value: 0.274

PPH	Parity		Total
	Para 2	Para >2	
Yes	17 (21.5%)	8 (22.9%)	25
No	62 (78.5%)	27 (77.1%)	89
Total	79	35	114

**Table-IV. Stratification of postpartum hemorrhage by parity**  
P-value: 0.873

Blood transfusion >4	Age		Total
	30 years	>30 years	
Yes	21 (47.7%)	33 (47.1%)	54
No	23 (52.3%)	37 (52.9%)	60
Total	44	70	114

**Table-V. Stratification of blood transfusion >4 by age**  
P-value: 0.951

Blood transfusion >4	Parity		Total
	Para 2	Para >2	
Yes	38 (48.1%)	16 (45.7%)	54
No	41 (51.9%)	19 (54.3%)	60
Total	79	35	114

**Table-VI. Stratification of blood transfusion >4 by parity**  
P-value: 0.813

Cesarean hysterectomy	Age		Total
	30 years	>30 years	
Yes	7 (15.9%)	7 (10%)	14
No	37 (84.1%)	63 (90%)	100
<b>Total</b>	44	70	114

**Table-VII. Stratification of cesarean hysterectomy by age**  
P-value: 0.349

Cesarean hysterectomy	Parity		Total
	Para 2	Para >2	
Yes	11 (13.9%)	3 (8.6%)	14
No	68 (86.1%)	32 (91.4%)	100
<b>Total</b>	79	35	114

**Table-VIII. Stratification of cesarean hysterectomy by parity**  
P-value: 0.32

## DISCUSSION

A major cause of morbidity and mortality in both developed and underdeveloped countries like Pakistan is placenta praevia.<sup>1</sup> The aim of the study was to look for frequency of maternal morbidity of placenta praevia with scarred uterus.

Scarred uterus is highly attributable to cesarean sections. Day by day increasing numbers of cesarean section are alarming sign due to increasing health care cost and it is directly connected with maternal morbidity and mortality.<sup>5</sup> The increase in maternal morbidity caused by repeated cesarean delivery is not limited to immediate operative complications but extends throughout a women's reproductive life.<sup>6</sup> In this study we found that the frequency of morbidly adherent placenta was 23.7%, postpartum hemorrhage 21.9%, blood transfusion >4 47.2% and cesarean hysterectomy was 12.3% cases. In a study regarding maternal morbidity, 13 (23.63 %) patients developed PPH. Morbidly adherent placenta praevia was found in 46% cases. Placenta praevia is isometry cause of post-partum hemorrhage (PPH). Similarly, due to this emergency obstetrical hysterectomy rate is increasing, 53.84% patients experienced cesarean hysterectomy.<sup>7</sup>

A study conducted by Shabnam Naz et al

showed the incidence of morbidities associated with placenta praevia in scarred uterus at Larkana, she noticed 20% incidence of postpartum hemorrhage, 8% c/section end up in cesarean hysterectomies and 92% need blood transfusion. The placenta praevia is associated with high parity, increased maternal age, uterine abnormalities smoking and previous cesarean section.<sup>4</sup>

In a study by Kiondo et al reported the predictors for severe bleeding in parturients with placenta praevia were: previous history of evacuation of the uterus or dilation and curettage (O.R. 3.6, CI: 1.1–12.5), delivery by caesarean section in previous pregnancy (O.R. 19.9, CI: 6.4–61.7). Here we can observe that there is high association of previous cesarean section and bleeding due to placenta and the confidence interval showed that it was statistically significant.<sup>8</sup>

In a study it was assumed that, by 2020 the cesarean section rate will be near to 56.2% with the rate of placenta praevias 6,236, rate of placenta accretas 4,504 with annually 130 maternal death rates. If present primary and secondary cesarean rates continue roughly, within 06 years these complications may rise.<sup>9</sup>

The major causes of increasing cesarean section rates in our society are illiteracy, early/delay marriages, flaws in healthcare system along with professional incompetency, poverty, poor referral systems and incapable departmental policies toward the issue.

Different clinical methods may help to reduce caesarian section; 1. Regarding clinical assessment and sound judgement before carrying out primary cesarean section, 2. Experimental normal delivery (vaginal) after previous cesarean section, 3. Limits the family to 3 by age of 30, 4. Use of contraceptive methods after 30. Furthermore, these methods may help to reduce occurrences of placenta praevia at reasonably low rate.

## CONCLUSION

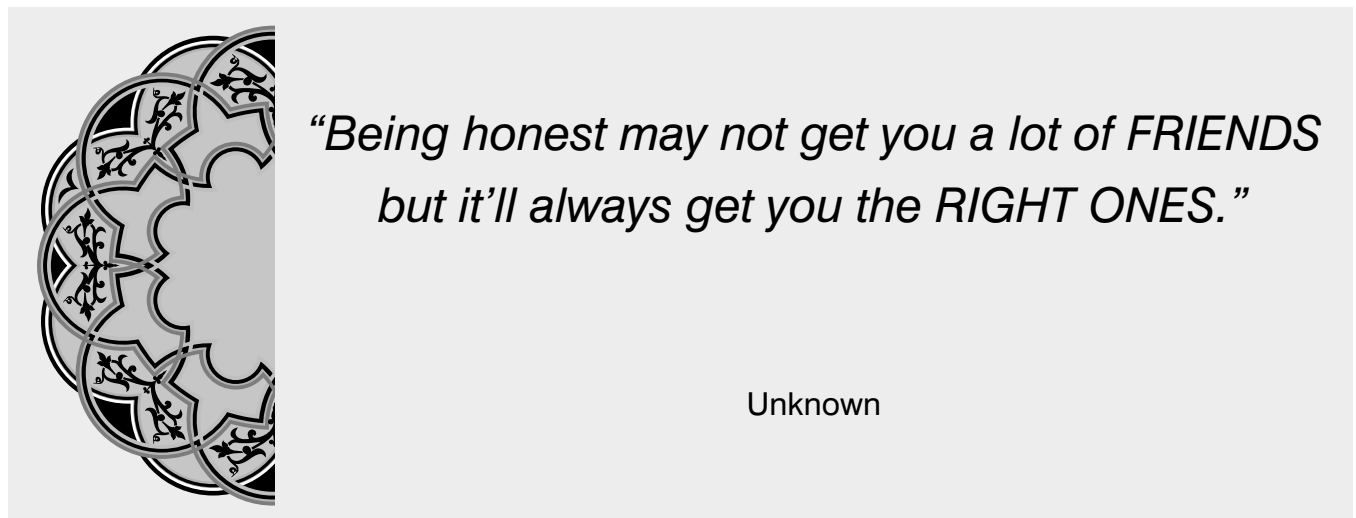
It was concluded from the study the frequency of Morbidly adherent placenta was 23.7%,

having Postpartum hemorrhage 21.9%, Blood transfusion >4 47.2% and Cesarean hystrectomy was 12.3% in such cases.

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**AUTHORSHIP AND CONTRIBUTION DECLARATION**

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Dr. Sumera Shaikh	Manuscript writing and structural modeling	<i>[Signature]</i>
2	Dr. Kiran Wassan	Data collection, proof reading and final drafting	<i>[Signature]</i>