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Mortality and Adverse Outcomes in Patients of Morbidly Adherent Placenta

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ABSTRACT

Objective: To determine the mortality and adverse outcomes in cases presenting with morbidly adherent placenta presenting to a tertiary care hospital. **Study design:** This was a cross sectional study. **Settings:** District Headquarter Hospital Rawalpindi. **Duration:** 01-06-2015 to 30-11-2015. **Methodology:** The females between the age of 20 to 40 years, delivering at the same institute with morbidly adherent placenta were selected. The diagnosis of MAP was made on the basis of clinical or histo-pathological examination. These cases then underwent with hysterectomy and were looked for bladder injury, blood loss, ICU admission or maternal death. **Results:** In the present study 40 cases of morbidly adherent placenta were included. the mean age of the subjects was 33.58±6.34 years. The mean parity was 2.1±0.98 and 54% of the cases had a prior C section and only 18% of the cases had a regular ante natal follow up. After the surgery bladder injury was seen in 10%, ICU admission in 32.50% of the cases and mortality in 30% of the cases while average blood loss was 2.8±0.78 litres. **Conclusion:** Morbidly adherent placenta is a highly morbid condition where it can be fatal in almost 1/3rd of the cases.

Keywords: Placenta, Death, ICU

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INTRODUCTION

Placenta is a vital organ which serves as a connection between the mother and the fetus for provision of the food and is responsible for the vitality; and can help in the other functions like respiratory and excretory system and its abnormal positions, structures and associated anomalies are not uncommon.[1-2]

The abnormalities of the placenta can be highly fatal as it is extremely vascular organ. Out of all these abnormalities; morbidly adherent placenta (MAP) is a very high-risk entity. The basic underlying pathophysiology includes its encroachment to the surrounding structures like intestine or bladder and is considered among the one third of the cases that present with emergency hysterectomies.[3-5]

MAP is classified on the basis of depth of infiltration into the myometrium: in placenta accreta, there is direct contact between chorionic villi and myometrium without decidua basalis; in placenta increta, chorionic villi invade the myometrium without reaching the serous layer; in placenta percreta, villi invade through the myometrium to reach or extend beyond the serosa into the surrounding tissues.[6]

MAP can result in significant blood loss which can results in various coagulopathies, hypoperfusion to vital organs leading to multi organ failure and hence need a high degree of vigilance and back up support to resuscitate these cases and in absence of appropriate measures it can be fatal ultimately.[7-8]

There are multiple risk factors that can lead to its development and amongst them a prior Cesarean section is the most important one and according to a survey, first Cesarean section lead to a 3% high risk for formation of MAP and this incidence increase significantly after the 2nd and the 3rd deliveries which this can jump up to 40% and 67% of the cases.[9-10]

Radiological investigations are the first mode to detect these and ultrasonography (USG) is most widely deployed one with a good sensitivity and specificity; although the best prediction is made with a magnetic resonance imaging (MRI). Early prediction, better resuscitation and anticipation of the complications is the key for a successful surgery in these cases.[11-12]

OBJECTIVE

To determine the mortality and adverse outcomes in cases presenting with morbidly adherent placenta presenting to a tertiary care hospital.

METHODOLOGY

Study Design: This was a cross sectional study.
Settings: District Headquarter Hospital Rawalpindi-Pakistan.
Duration: Six months from 01-06-2015 to 30-11-2015.
Methods: The females between the age of 20 to 40 years, delivering at the same institute with morbidly adherent placenta were selected. The cases were selected irrespective of gravida, parity, duration of gestation and prior Cesarean section. The diagnosis of MAP was made on the basis of clinical or histo-pathological examination where it was denoted if it was impossible either partially or totally to remove the placenta from its bed or there was deep encroachment of placenta to serosa, surrounding tissues or placental site on histopathology of the hysterectomy. These cases then underwent hysterectomy and

were followed for 6 weeks after the surgery and were looked for bladder injury, blood loss, ICU admission or maternal death.

Statistical analysis: The data was entered and analysed by using statistical package for social sciences version 23. Mean and standard deviations were calculated for quantitative variables and frequency and percentages were qualitative variables.

RESULTS

In the present study 40 cases of morbidly adherent placenta were included. the mean age of the subjects was 33.58±6.34 years. The mean parity was 2.1±0.98 and 54% of the cases had a prior C section and only 18% of the cases had a regular ante natal follow up as shown in table 1.

Table 1: Study demographics

Variables	Mean ± SD	Range
Age	33.58±6.34	20-39
BMI	28.89±5.24	18-36
Parity	2.1±0.98	1-6
	Number	**Percentage**
Prior C section	27	54%
Regular ante-natal follow up	9	18%

After the surgery bladder injury was seen in 10%, ICU admission in 32.50% of the cases and mortality in 30% of the cases while average blood loss was 2.8±0.78 litres table 2.

Table 2: Outcomes

Variables	No.	%
Bladder injury	4	10%
ICU admission	13	32.50%
Death	12	30%
Blood loss	2.8±0.78 litres	

DISCUSSION

Abnormal placentation is one of the leading causes of obstetric complications and morbidly adherent placenta is among the top ones which has further subtypes depending upon its degree of penetration and involvement of the underlying and surrounding structures. Considering the highly vascular nature of this, significant blood loss, multi organ failure, cardiovascular collapse and death are the major outcomes seen in such cases.[13-14]

In the present study, hysterectomy in cases of morbidly adherent placenta was done in 40 cases and bladder injury was seen in 10%, ICU admission in 32.50% of the cases and mortality in 30% of the cases while average blood loss was 2.8±0.78 litres.

The findings of the present study were closer to the studies done in the past which have revealed a high degree of mortality in these cases.[15-17]

According to a study done by Desai et al a high degree of ICU admission was noted and was seen in 80% of the cases and blood loss of more than 2 litres was also noted in 80% of the cases which was close to the average blood loss in the present study which was seen as 2.8 litres. Mortality in their study was seen in 10% of the cases which was quite low as compared to present study.[18] According to a study done by Eller AG et al this mortality was seen in around 8% of the cases and over all ICU admission and multi organ failure was seen in more than 50% of the cases.[19] According to study by Robinson BK et al, the mortality and bladder injuries were seen in less than 10% of the cases each but blood loss was a significant finding in their study.[20] According to a study by Pinas-Carrillo A et al , a pre procedure early resuscitation led to lesser degree of blood loss.[21] The reason for higher mortality in the present study as compared to developed world can be lesser degree of ante natal visits, poor health care services and the unavailability of the ICU bed which is highly recommended after this extensive surgery and associated coagulopathies.

CONCLUSION

Morbidly adherent placenta is a highly morbid condition where it can be fatal in almost 1/3rd of the cases.

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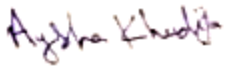
Dr. Aysha Khudija Consultant Gynaecologist, Govt. General Hospital Samanabad, Faisalabad	Statistical Analysis & References Writing, Drafting of the article, Results and Final Layout	
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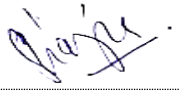
Dr. Shazia Aftab Associate Professor, Gynaecology Jinnah Medical and Dental College, Karachi.	Review of Manuscript	
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