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Maternal Outcome in Patient having Morbid Adherence of Placenta after Hysterectomy

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Objectives: To determine maternal outcome in patient having morbid adherence of placenta after hysterectomy. **Methods:** One hundred and eight patients with MAP on transabdominal ultrasonography (USG). All the patients had hysterectomies. All these patients were assessed for outcome parameters (urinary bladder injury, DIC and death). SPSS version 23 was used for data analysis. Student t test and chi square test were applied to see association among variables. P value ≤0.05 was taken as significant. **Result:** The complications were present in 27 (25%) patients. Urinary bladder injury, DIC and mortality was observed in 23 (21.3%), 2 (1.9%), and 2 (1.9%) patients. There were 81 (75%) patients who did not have any complication. **Conclusion:** Maternal outcome after hysterectomies for treatment of badly adherent placenta was associated with significant rate of morbidity. To reduce maternal mortality rate diagnosis of morbidly adherent placenta in antenatal period is necessary and caesarean hysterectomy is the best treatment option.

Keywords: Morbidly adherent placenta Hysrectomy

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INTRODUCTION

The well being of the fetus is affected by many factors but a healthy baby can be produced with healthy placental attachment. **[1,2]** The placenta begins to form at about the seventh day after fertilization when the first cell layer of cytotrophoblast is observed. During pregnancy, a range of problems may occur that could lead to fetal abnormalities and death. Among these problems, placental abnormalities are the most important issue **[3]**. In anteoartum time ultrasonography is the main stay og imagimg techniques.**[4]** Placenta shows uniform echogenicity and deep hypoechoic band lyting at junction og myometrium and layer of basilar decidual. Latest updated Doppler techniques are able to show vascularised portion of placenta due to which assessment of fetoplacental and uteroplacental can be achieved. After fibroids and uterine scarring vascularity become poor and lead to atrophy of villi and compromise the circulation.

Abnormal or poor adherence of placenta to the uterine wall named as morbidly adherent placenta, it is life threatening com0lication. At the time

of delivery severe hemorrhage may occur and morbidity and mortality rate may increases.**[5,6]**

Three types of morbid adherent placenta are defined according to the depth of myometrial invasion: accreta (80% of cases), increta (15% of cases) and percreta (5% of cases) **[7,8]**. Morbid adherent placenta is associated with significant maternal morbidity and mortality and is one of most acute life threatening emergencies in obstetrics. According to American college of obstetrics and gynaecology, its incidence is 1:2500 per delivery **[9,10].**

Methodology

This cross sectional study was conducted in the department of obstetrics and gynacology Nishter hospital,Khawaja Fareed Social Security Hospital, Multan from August 2018 to August 2019.. Study was conducted with permission of ethical committee of institutions. The outcomes were evaluated by consultant obstetrician and gynaecologist having at least five years post fellowship experience.

Morbid adherent placenta was defined as abnormal adherence of the placenta to the underlying uterine wall, diagnosed on Doppler ultrasonography. Maternal Outcome will be measured in terms of urinary Bladder Injury that was considered when bladder was opened during surgery or patient presents with complaints of hematuria or passage of urine through vagina post operatively. Disseminated Intravascular Coagulopathy was considered as derrangement of clotting profile patient bleeds profusely from the skin e.g venipuncture sites and surgical wound and maternal death within 24 hours of delivery. Gravid women (20-40) yrs with morbidly adherent placenta diagnosed on Doppler ultrasonography. The patients were labeled having MAP on the basis of the following Doppler findings (≤1mm thinning of anterior lower uterine segment, interparenchymal placental lacunar flow, swiss cheese appearance, bladder uterine serosa, extension of placental tissue beyond uterine serosa and gestational amenorrhea 30-40 week by last menstrual period, irrespective of parity were included in the study. Gravid women diagnosed on Doppler ultrasound, but no adherence intra-operatively, gravid women with previous spontaneous vaginal deliveries, grand multipara were excluded from the study. The outcome variables of my study were pregnancy outcome in terms of urinary bladder injury, disseminated intravascular coagulopathy and maternal death. All the information was recorded in predesigned proforma.

SPSS version 23 was used to analyze the data, descriptive statistics were issued to calculate mean ± SD for age and parity of patients. Frequencies and percentages were calculated for maternal outcome associated with morbid adherent placenta in pregnancy. Confounders like age, parity were controlled by making stratified cross matching tables through Chi-Square test P-value ≤ 0.05 as Significant.

Results: One hundred and eight pregnant women included in this study. In the study, the mean age of the patients was 28.43 ± 6.29 years

[range 20 – 38]. There were 36 (33.3%) patients of age range of 20 – 25 years, 34 (31.5%) patients of age range of 26 – 30 years, 20 (18.5 %) patients of age range of 31 – 35 years and 18 (16.7 %) patients of age range of 36 – 40 years.

There were 37 (34.3%) patients of parity 1, 43 (39.8%) patients with parity 2, 21 (19.4%) patients of parity 3, and 7 (6.5%) patients of parity 4. (Table 2). There were 43 (39.8%) patients who had previous history of one cesarean section, 38 (35.2%) patients with 2 cesarean sections, 19 (17.6%) patients with 3 cesarean sections and 8 (7.4%) patients with 4 cesarean sections. (Table-1)

Table-1: Demographic, Parity and number of cesarean sections

Characteristic	Mean	SD
Age	28.43	6.29
Parity		
Characteristic	Frequency	Percentage
1	37	34.3
2	43	39.8
3	21	19.4
4	7	6.5
No. of cesarean section		
1	43	39.8
2	38	35.2
3	19	17.6
4	8	7.4

Among the 108 patients in the study, urinary bladder injury was observed in 23 (21.3%) patients, disseminated intravascular coagulopathy among 2 (1.9%) patients and maternal death in 2 (1.9%) patients. There were 81 (75%) patients who did not have any complication. (Table-2)

Table-2: Outcome variable

Outcome		No. of patients	Percentage
Complications	Urinary bladder injury	23	21.3
	Disseminated intravascular coagulopathy	2	1.9
	Maternal death	2	1.9
No Complications		81	75

Discussion

In literature, there are few other clinical trials with smaller number of sample size. The results of the trials vary from one author to the other. In study by Hasan AA, **[11]** the mean age of patients were 33.87 years. The majority of the patients were of mean parity 3. Maternal mortality is highly associated with morbidly adherent placenta (estimated mortality is 10%) and significant maternal morbidity, including massive hemorrhage, DIC, hysterectomy, bladder and ureteric trauma, ARDS and acute tubular necrosis. In our study, the urinary bladder injury was the most common complication (21.3%) detected in our study. The rate of this complication is quite comparable to the other studies. In a study by Hasan AA, et al. **[11]** 7.7 % patients had bladder injury. While Sultana N et al, **[12]** reported a higher frequency of the bladder injury

(18.5%). Of those, 15.5% injuries occurred while doing hysterectomies while the rest were associated with conservative management.

Jalil S, et al. **[13]** in a smaller series of 13 patients, reported the frequency of bladder injury in 7.7% patients. In another study by Hoffmann, et al, **[14]** including 29 patients with cesarean hysterectomies, the frequency of urinary tract injury was 6.7%. They performed all of their surgeries on non-emergent grounds. Even doing this procedure electively could not reduce the mortality. Conservative management involves leaving placenta in situ; this may be complemented by bilateral embolisation of uterine arteries, parenteral methotrexate or both. Balloon occlusive devices can be placed in both internal iliac arteries before surgery by an interventional radiologist. The placenta left in situ decreases in size on 5th postoperative day and followed up by ultrasound Doppler, no placental tissue left on 20 weeks as described by Edwin. **[15]**· The maternal mortality is high as 7–10% in reported cases reported by O'Brien et al [16]. In a study conducted by Bailit et al[17] reported that 18% of womwn were nulliparous, all cases with morbidly adherent placenta and large blood loss was occurd in 33% of patients. Another study was conducted by Naila T et al[18] and reported that previous ceaserian section is the major cause of morbidly adherent placenta. In this study 7.40% of cases have previous ceaserian section. Chaudhari et al[19] reported a figure of 50% previous scar of ceaseran delivery, interauterine procedure was not performed in any patient. Management of morbidly adherent placenta is still a challenge; high morbidity is associated with this complication.

Conclusion: Maternal outcome after hysterectomies for treatment of badly adherent placenta was associated with significant rate of morbidity. To reduce maternal mortality rate diagnosis of morbidly adherent placenta in antenatal periode is necessary and caesarean hysterectomy is the best treatment option.

Limitations: This study had some limitations. This was a single center study including a limited population size. The most of the surgeries done in this study were by consultants or Fellow surgeons. The results of this procedure in the hands of residents or primary surgeon at some basic health units are not known and need to be evaluated.

References

1. Kliman JH. Behind every healthy baby is a healthy placenta. Reproductive and Placenta Reseach Unit 1997;1.
2. Van den Broek N, Ntonya C, Kayira E, White S, Neilson JP. Preterm birth in rural Malawi: high incidence in ultrasound-dated population. Human Reproduction 2005;20:3235-3237.
3. Mazouni C, Gorincour G, Juhan V, Bretelle F. Placenta accreta: a review of current advances in prenatal diagnosis. Placenta 2007;28:599-603.
4. Abramowicz JS, Sheiner E. In utero imaging of the placenta: importance for diseases of pregnancy. Placenta 2007;28:14-22.
5. Vora K, Chandana P, Patel A, Jain M. A prospective study of 20 cases

of maternal outcome in morbidly adherent placenta in tertiary care hospital. Intl J Reproduction, Contraception, Obstetrics Gynecology 2017;6(2):571.

6. Desai R, Jodha B, Garg R. Morbidly adherent placenta and it's maternal and fetal outcome. International Journal of Reproduction, Contraception, Obstetrics and Gynecology 2017;6(5):1890.

7. Hetty M, Dryden D. Morbidly adherent placenta: Ultrasound assessment and supplemental role of magnetic resonance imaging. Seminars in Ultrasound, CT and MRI 2015;36:324-31.

8. Pekar-Zlotin M, Melcer Y, Levinsohn-Tavor O, Tovbin J, Vaknin Z, Maymon R. Cesarean scar pregnancy and morbidly adherent placenta: Different or similar?. The Israel Medical Association journal: IMAJ 2017;19(3):168.

9. Rac M, Wells C, Twickler D, Moschos E, McIntire D, Dashe J. Placenta accreta and vaginal bleeding according to gestational age at delivery. Obstetrics & Gynecology 2015;125(4):808-13.

10. Eller AG, Bennett MA, Sharshiner M, Masheter C, Soisson AP, Dodson M, et al. Maternal morbidity in cases of placenta accrete managed by a multidisciplinary care team compared with standard obstetric care. Obstet Gynecol 2011;117:331-7.

11. Hasan AA, Hasan JA, Khan AA. Management and maternal outcome in morbidly adherent placenta. J Surg Pak 2009;14:166-9.

12. Sultana N, Mohyuddin S, Jabbar T. Management and maternal outcome in morbidly adherent placenta J Ayub Med Coll Abbottabad 2011;23:93-6.

13. Jalil S, Nausheen S, Akhter AZ. Reducing morbidity and mortality in morbidly adherent placenta: an experience. Pak J Surg 2011; 27:59-63.

14. Hoffman MS, Karlnoski RA, Mangar D. Morbidity associated with nonemergent hysterectomy for placenta accreta. Am J Obstet Gynecol 2010;202:628.e1-5.

15. Edwin WH Th ia, Lay –Kok Tan. Lessons learnt from two women with morbidly Adherent Placentas. Ann Acad Med Singapore 2007;36: 298-303.

16. O'Brien JM, Barton JR, Donaldson ES: The management Of Placenta previa conservative and operative strategies Am J Obstet. Gyne. 1996;175:1632-8.

17. Bailit JL, Grobman WA, Rice MM, et al. Morbidly adherent placenta treatments and outcomes. *Obstet Gynecol*. 2015;125(3):683–89.

18. Tahir N, Adil M, Afzal B. Definit treatment of morbidly adherent placenta: Analysis of maternal outcomes. Pak ArmedForcesMed J 2018;68(5):1156-60.

19. Chaudhari H, Shah P, D'Souza N. Morbidly adherent placenta: Its Management and maternal and perinatal outcome. JObstetricsGynecologyIndia 2016;67(1):42-47.