

OUTCOME OF DELAYED HYSTERECTOMY FOR PLACENTA PERCRETA IN A TERTIARY CARE CENTER OF A THIRD WORLD COUNTRY— A DESCRIPTIVE STUDY

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Abstract

Objective: To analyze the amount of hemorrhage, damage to the surrounding structures, need for transfusions, PPH, sepsis and mortalities arising as a result of delayed hysterectomies for Placenta Percreta.

Methods: It was a descriptive study conducted at OBGY unit 3, Sir Ganga Ram Hospital from March 2021 to March 2022. Data was taken from specially maintained registers for placenta accreta spectrum. Patients undergoing delayed hysterectomies for inoperable placenta percretas were selected and their data regarding the mentioned outcome measures was collected and analyzed in SPSS.

Results: Thirteen (13) patients underwent delayed hysterectomy in one year. More than half of the patients had four litres or less blood loss. They showed better response to haemorrhage. No relationship of amount of bleeding with interval between the surgeries, previous surgeries or parity was noted. No ureterovesical damage. No sepsis. PPH was noted in 15% of patients and mild spotting in 15%. One death of a morbidly obese patient was observed. No death could be attributed to retention of placenta.

Conclusion: Encouraging results were seen where patient survival was concerned. Excellent results were noted where collateral damage to bladder and ureters was concerned. Minimum complications were noted, making this a viable option for patients with placenta Percreta, the most serious placental condition within the placenta accreta spectrum.

Keywords: Hysterectomy, placenta, percreta, placenta accreta, post-partum, haemorrhage.

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Placenta Accreta spectrum is associated with high risk of morbidity and mortality. Various radical and surgical options have been proposed as management. The Percreta subset poses special surgical difficulty as the bladder walls are thinned out and incorporated in the uterine wall, resulting in hemorrhage and ureterovesical damage. In the third world countries, where arranging properly cross matched and screened blood is in itself a problem, delayed hysterectomy with

placenta in situ may be a safer option where patient outcome is concerned. Statistics can help develop confidence in this management option.

There has been a steady rise in the number of patients presenting with morbidly adherent placenta.¹ Cesarean Hysterectomy is the preferred non-conservative approach for morbidly adherent placentae especially for low resource countries, instead of conservative surgeries.²⁻⁴ However, when placenta is percreta the patient has a high risk of the massive hemorrhage, need and complications of massive transfusion, urinary tract injuries and ischemic organ damage,⁵⁻⁹ even with hysterectomy. Excessive blood loss and resultant massive transfusion has been seen as a significant contributor in maternal mortality.¹⁰ For such patients planned delayed hysterectomy with placenta in situ may be a

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better option.

Planned delayed hysterectomy with placenta in situ is a procedure where the baby is delivered from a high uterine incision at primary surgery. Umbilical cord is tied and replaced inside the cavity and if the placental bed does not bleed, the uterine incision is closed. The abdomen is closed. Patient is scheduled for hysterectomy a few days later.¹⁴ Delayed hysterectomy allows placental regression and allows dissection of bladder and parametria without torrential hemorrhage from various aberrant vasculature.¹¹ Planned delayed hysterectomy avoids the morbidity of severe sepsis associated with conservative approach of retaining the placenta for spontaneous expulsion.¹² However, patients may develop PPH or infections prior to scheduled date of re-surgery. Close liaison of the patient with the hospital staff and 24 hours' access to hospital services is also a very important requirement.¹

The time of second laparotomy can be anywhere from 3 to 12 weeks postpartum as quoted by FIGO consensus guidelines¹ and other literature.^{2,3} RCOG guideline number 27a considers a week to be "probably" adequate.⁴ Selection method of time of second surgery is not clear.

Planned delayed hysterectomy has shown promising results. However, there is paucity of data on secondary hysterectomy outcomes.^{4,11} The largest study to date was carried out in a single center and with limited patients.¹³ There is a general reluctance in adopting this approach for the fear of secondary hemorrhage and double anesthesia and surgeries.

This research is meant to see the outcome of patients who had undergone delayed planned hysterectomy in a period of one year; carried out for placenta percreta patients presenting in gynae unit 3 of Sir Ganga Ram Hospital. Intraoperative complications of bleeding, collateral damage, and morbidity like decompensation are noted. Inter operative complications like hemorrhage, sepsis or maternal mortality due to bleeding prior to or during second surgery are also analyzed.

METHODS

It was a descriptive study carried out in OBGY

unit 3, Sir Ganga Ram Hospital from March 2021 to March 2022. Data for a period of one year was taken from pre-maintained register for placenta Accreta spectrum. Patients with placenta percreta having delayed hysterectomy with placenta in situ were included in the study. Pregnant patients with accreta or documented increta, patients with placenta percreta who have any acute illness like fever or infection just prior to first surgery and patients with any coagulopathy were excluded from the study. After ensuring the consent and taking approval from ethical review board, data were collected from Placenta Accreta Spectrum register. Patients undergoing delayed hysterectomy for placenta Percreta alongwith various outcome measures like intra operative hemorrhage, amount of blood transfusions, surgical damage to the surrounding structures and any sepsis or bleeding prior to the second laparotomy were noted, apart from the demographic details and previous surgeries of the patients (Hemorrhage is documented in the notes and register by adding blood loss from the suction bottle and gravimetric method applied on abdominal sponges used) Data analysis was done by SPSS system. Age, parity, number of previous Caesarean sections were noted and analysed. Mean blood loss and any association of the blood loss with parity, previous surgeries, interval between the two surgeries was also analysed. Collateral damage to bladder and ureters was noted. Mortalities and risk factor of the mortality was also analyzed.

RESULTS

A total of 30 patients were enrolled for delayed hysterectomy during this period but 17 of them ended up with primary hysterectomy due to bleeding at the time of Cesarean so the cohort that did have delayed hysterectomy consisted of only 13 patients. The age range was from 21 to 37 years. The mean age was 31 years (Table 1). Parity varied from Para 3 to 5, 46% of patients were P3, 38% were P5, 7.6% were P1 and same i.e. 7.6% were P4. So, majority of the patients were gravid for the 3rd time when they presented and successfully ended up in delayed hysterectomy. One of these patients (7.6%) had a previous one Cesarean

Table 1: Mean age of participants

N	Mean	Std. Deviation
13	31.38	4.556

Table 2: Parity and Previous C-Section

No	Parity	Previous Cesarean
1	3	2
2	3	2
3	3	2
4	5	4
5	4	3
6	2	1
7	5	2
8	5	4
9	5	4
10	3	2
11	3	2
12	5	4
13	3	2

section, seven of these patients (54%) were previous 2, one (7.6%) were previous 3, four (29.6%) were pre-

Table 3: Haemorrhage and Transfusions Required

S. no	Haemorrhage in ltr	Transfusion bags	Interval between two procedures (days)
1	7	7	24
2	1.8	2	7
3	1	2	18
4	4	5	40
5	6	7	14
6	1	2	3
7	1.8	2	24
8	1	0	7
9	5	3	3
10	2	1	8
11	7	7	
12	4	3	
13	2.6	3	

vious 4. Parity and previous surgery shown in table 2 Interval between the two surgeries varied from 3 to 40 days. For three of the patients the data of interval was missing. From the remaining, 40% were operated within a week (7th day inclusive), 40 % were done after a fortnight and 20 % were done in the second week after surgery. So about half of the patients had their surgery within 3 weeks due to one or other reason (Table 3). The range of blood loss was 1.8 to 7 liters.

The mean was 3.54 liters. Majority (69.2%) had less than 4 liters of blood loss while 30.7% had more than 4 liters loss. Maximum loss was of 7 liters. None of the patients required a transfusion of more than seven blood bags of various products, during the surgery (Table 4). No correlation was seen between interval between the procedures and amount of haemorrhage at hysterectomy (Table 4). There was no ureteric injury or bladder damage. There was one death in group B but that patient was morbidly obese.

DISCUSSION

Primary hysterectomy can result in excessive loss and damage to bladder and ureters when done for placenta Accreta, more than that seen in delayed hysterectomy.¹⁴

Hemorrhage is the number one cause of maternal mortality. Adherent placentae have a major share in causing obstetrical hemorrhage. Acquisition of blood is a problem in South Asian countries where the attendants have to arrange for donors. That is why radical procedures like Cesarean Hysterectomy with placenta in situ has been accepted as the safest procedure specially for under developed countries.³

However even with primary hysterectomies massive blood transfusions¹⁵ and high morbidity and mortality is seen in placenta percreta subset. No subject in our cohort of patients required massive transfusion which compares very favorably to 42% rate seen in patients having primary hysterectomy for placenta percreta.¹⁶ The blood loss range was from 1.4 to 7 liters. This was less than the loss encountered in our unit for patients undergoing primary hysterectomy with placenta in situ for Percreta. 9 of 13 patients had bleeding below 5 liters. Bladder and ureters are at special risk of injury and can cause long term maternal morbidity. There is no ureteric injury noted and no bladder damage in this cohort. These are very good results when compared to primary hysterectomies.¹⁴ In our study two patients presented with history of pain lower abdomen. One had associated severe PPH but she had history of domestic abuse. Two patients presented with Per vaginal bleeding ranging from spotting

to mild bleeding and were opened on list prior to scheduled date. Outcome was very good. Risk of sepsis and PPH has placed reluctance over its use as a safe procedure. In our study the mean duration of retention was 14.8 days while the range of interval period between two surgeries was from 3 to 40 days. We did not get any septic patient. One patient presented with low grade fever and was operated upon. She remained healthy afterwards and did not develop sepsis. These results correspond to the largest study to date shows less blood loss and ureterovesical damage and less need of transfusions.¹⁴ Two of the patients in delayed hysterectomy group had presented with APH and pain abdomen, and they had to be managed in emergency. One of the patients had history of Domestic abuse. Both survived without any further complication.

There was one maternal mortality making an incidence of 7.6% which is similar to the 7% mortality reported in delayed group by Lisa et al.¹⁷ However, this patient was morbidly obese and that could have been a significant co-factor in her outcome.

CONCLUSION

Encouraging results were seen where patient survival was concerned. Excellent results were noted where collateral damage to bladder and ureters was concerned. Patients undergoing delayed hysterectomy have a significant reduction in the need for blood transfusion with minimum complications, making this a viable option for patients with placenta Percreta, the most serious placental condition within the placenta accreta spectrum. Our study has limitations because comparison with primary hysterectomy of elective procedures would have given better results which we has not done here as randomization in a case of placenta Percreta, surgically assessed as inoperable, would have been ethically impossible. There is paucity of data and much literature is not available.

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