THE STUDY OF EFFICACY AND SAFETY OF EXPECTANT MANAGEMENT OF INCOMPLETE ABORTION

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ABSTRACT

Expectant management of incomplete abortion is a wait full waiting without intervention for certain period of time so that the retained product of conception will be expelled spontaneously. This study was carried out to see feasibility and safety of expectant management of incomplete abortion. It was observational descriptive study which was carried out in Nepal Medical College Teaching Hospital from July to December 2020 in 60 patients of spontaneous incomplete abortion. The patients which fulfill the inclusion criteria were sent home after bleeding has settled and ultrasound was carried after two weeks to see the success of the treatment. The success of the expectant management was found in 86.7%. There were heavy bleeding in 6.7% cases, unscheduled surgical evacuation was done in 13.3% cases. Blood transfusion was carried out in 5.0% of cases. The number of cases complained of severe low abdomen pain were 8.3% and limitation of activity were present in 10.0% of cases. There was one (1.7%) patient who showed the sign of genital infection. With the success of 86.7% of expectant management of incomplete abortion in our study we can consider expectant management of incomplete abortion as a safe option. However, small percentage of complications such as heavy bleeding, emergency surgical evacuation and severe pain are seen.

KEYWORDS

Expectant management, efficacy, incomplete abortion, safety

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INTRODUCTION

Spontaneous expulsion of fetus or an embryo weighing 500 gm or less at a period of amenorrhea of 20 weeks or less than that is defined as abortion.\textsuperscript{1} When part of production of conception is retained then it is known as incomplete abortion. It is routine practice to manage incomplete abortion surgically. Up to 88% of abortion underwent surgical evacuation.\textsuperscript{2} But surgical method is associated with haemorrhage, pelvic infection, very rarely bowel and bladder damage, broad ligament haematoma, secondary infertility, Asherman syndrome as well as anaesthetic complications.\textsuperscript{3} The incidence of serious morbidity has been estimated to be 2.1% while the mortality is around 0.5 per 100,000 with surgical evacuation.

Now days there are two other methods available to manage incomplete abortion, which are considered to be safe and effective.\textsuperscript{5-7} They are medical and expectant management. The acceptability of medical methods is still questioned by the choice of preferred drug, optimal dosage and need for readmission due to excessive symptoms.\textsuperscript{8,9} Expectant management is watch full waiting without intervention for certain period of time so that the retained product of conception will be expelled spontaneously. It is considered to be suitable if in anterior and posterior view of ultrasound, there are 15 to 50 mm of product of conception and if patient is haemodynamically stable.\textsuperscript{10-12}

Wijesinghe et al\textsuperscript{13} stated that expectant management up to period of two weeks obviates surgical evacuation in nearly 95% of the patients. It does not increase the risk of uterine infection and increase the chance of unscheduled surgical evacuation. Pauleta et al\textsuperscript{14} found that 86.5% of cases had complete expulsion when expectant management was done of incomplete abortion and patient satisfaction was 100%. Similar findings were found by many other studies.\textsuperscript{15,16} Incomplete abortion is one of the commonest condition for which patients are admitted in Obstetrics and Gynaecology Department. If we can avoid surgical evacuation we can lessen the expenditure, hospital load, hospital stay and complications related to surgical evacuation. So this study was carried out to see feasibility and safety of expectant management of incomplete abortion.

MATERIALS AND METHODS

This study was observational descriptive study which was carried in Obstetrics and Gynaecology Department of Nepal Medical College Teaching Hospital. It was carried out from July to December 2020.

**Inclusion criteria:** Patients of spontaneous incomplete abortion, haemodynamically stable, no sign of uterine infection, of gestation till 12 weeks were included.

**Exclusion criteria:** Patients of incomplete abortion caused by medical abortion, with profuse bleeding, haemodynamically unstable, signs of sepsis, severe pain and fever were excluded.

Total 60 patients of incomplete abortion which fulfill the inclusion criteria were included. Detail history were taken and patient clinical characteristics such as age, parity, gestation were recorded. Then informed written consent was taken and patients were sent home after bleeding has settled. All the patients were asked to come for follow up after 2 weeks or come in between if any complications arises. After 2 weeks, all the patient underwent ultrasound to see the success of the treatment and the findings was analysed statically using SPSS v16 statistical software programme and the Chi-square test. P value= 0.05 or less was considered significant.

RESULTS

There were total 60 patients enrolled in the study. Their age ranges, parity and gestation are given in the Table 1, 2 and 3, respectively. Age range was between 18 to 40 years. 19 or less were 15%, 20-30 years were 60% and 31 years and above were 25%. As regard to parity,

| Table 1: Age of the patients |
|-----------------------------|
| Age (years) | n | % |
| ≤ 19 | 9 | 15.0 |
| 20 – 30 | 36 | 60.0 |
| ≥ 31 | 15 | 25.0 |

| Table 2: Parity of patients |
|-----------------------------|
| Parity | n | % |
| $P_1$ | 36 | 60.0 |
| $P_2$ | 16 | 26.7 |
| $P_3$ or above | 8 | 13.3 |
primipara were 60%, parity 2 were 26.67% and parity 3 or more were 13.33%. The study was carried out between 4 - 12 weeks of gestation. There were 33.33% of cases with gestation 6 or less, 26.67% between 7-9 weeks and 40.00% between 10-12 weeks. The outcome of the study is given in table-4. During the study period, the success of the expectant management was found in 86.67% and failure was in 13.33%. There were heavy bleeding in 6.67% cases, unscheduled surgical evacuation was done in 13.33% cases. Blood transfusion was carried out in 5.00% of cases. The number of cases complained of severe low abdomen pain were 8.33% and limitation of activity were present in 10.00% of cases. There was one (1.66%) patient who showed the sign of genital infection. She was treated with intravenous antibiotics. When correlating with the age, parity and gestation with the success of the management we found that higher the gestation the success rate was higher (P value- 0.05) (Table 5).

### Table 4: Outcome of expectant management of incomplete abortion and complications

| Outcomes                      | n   | %   |
|-------------------------------|-----|-----|
| Success                       | 52  | 86.7|
| Failure                       | 8   | 13.3|
| Heavy bleeding                | 4   | 6.7 |
| Surgical evacuation           | 8   | 13.3|
| Blood transfusion             | 3   | 5.0 |
| Lower abdomen pain            | 5   | 8.3 |
| Limitation of activity        | 6   | 10.0|
| Genital infection             | 1   | 1.7 |

### Table 5: Correlation of age, parity and gestation with the outcome of patient

| Variable                   | Category            | Outcome | p-value * |
|----------------------------|---------------------|---------|-----------|
| Age in years               | ≤ 19                | 7 (77.8%) | 2 (22.2%) | 0.542    |
|                            | 20 – 30             | 31 (86.1%) | 5 (13.9%) |           |
|                            | ≥ 31                | 14 (93.3%) | 1 (6.7%)  |           |
| Parity                     | \(P_1\)             | 29 (80.6%) | 7 (19.4%) |           |
|                            | \(P_2\)             | 15 (93.7%) | 1 (6.2%)  | 0.124     |
|                            | \(P_3P_5\) or above | 8 (100.0%) | 0 (0.0%)  |           |
|                            | ≤ 6                 | 14 (70.0%) | 6 (30.0%) |           |
| Gestation in weeks         | 7 – 9               | 14 (87.5%) | 2 (12.5%) | 0.005     |
|                            | 10 – 12             | 24 (100.0%) | 0 (0.0%)  |           |

* Chi-square test

### DISCUSSION

ACOG practice bulletin of 2018 has included expectant management as a reasonable first line option in all cases of miscarriages. It stated that medical management should not be routinely offered to incomplete miscarriage.\(^{17}\)

When considering the success of expectant management of incomplete abortion, there was 86.7% success in our study. This finding is comparable to many studies done for similar research. In an observational study of first trimester abortion done by Luise et al\(^{11}\) there were 91.0% success of expectant management of incomplete abortion. Sajan et al\(^{18}\) and Pauleta et al\(^{14}\) also found 88.5% and 82.1% success respectively in their studies. Similarly, Lemmers et al\(^{19}\) also researched on management of incomplete abortion and they found that almost 85% of the cases had complete evacuation when expectant management was done. However, Wijesingehe et al\(^{13}\) had comparatively higher success rate (94.4%) of expectant management of incomplete abortion.

In our study there were few complications of expectant management. We had 6.7%
of heavy bleeding, 13.3% of unscheduled surgical evacuation, 5.0% had to undergo blood transfusion. In a study done by Kushwah and Kushwah, they found heavy bleeding requiring blood transfusion in 5.00% of cases and emergency surgical evacuation in 7.00% of cases of expectant management of incomplete abortion. Wijesinghe et al had to carry out emergency surgical evacuation in 5.6% of cases but there was no cases of blood transfusion in their study. Genital infection was found in 1.7% of case in our study. Wijesinghe et al did not found any genital tract infection in their study. In a study done by Kushuwah et al there were 6.0% genital tract infection. There were 8.3% of cases of severe pain and 10.0% cases with limitation of activity in our study which can be compared to the study done by Sajan et al where severe pain was experienced by 7.7% of cases and limitation of activity in 8.0% of cases.

When correlating the gestation with the success of the treatment, we found that higher the gestation the percentage of success was higher. (p value-0.005) Fernlund et al also found in their research that the likelihood of complete miscarriage increased with increasing gestational age according to last menstrual period, increasing crown rump length and decreasing gestation sac diameter.

With the success of 86.0% of expectant management of incomplete abortion in our study we can consider expectant management of incomplete abortion as a safe option. But it is associated with small percentage of complications such as heavy bleeding, emergency surgical evacuation, severe pain and genital tract infection. So patient selection is very important when deciding to choose for expectant management. The use of biochemical essay such as serum progesterone and Beta Human chorionic gonadotrophin (HCG) may also help us to decide in selecting the management option. Several studies reported that the lower the serum Beta HCG and serum progesterone values higher the success rate of expectant management of incomplete abortion.

Furthermore, whenever there are more than one option for the management of any disease, patient preference is also an important factor. In a study done to find patient preferences for treatment of incomplete abortion, they found strong patient preference for expectant treatment but gave physician recommendation a significant role in the final decision. Physician need to offer both options to patient and consider individual patient preferences when making recommendations regarding the management of first trimester spontaneous abortion.

Therefore, expectant management of incomplete abortion is safe management option. It would lessen the hospital burden, decrease the cost to the patient and avoid complications related to surgical and medical evacuation. It is associated small percentage of complications. Patient selection such as incomplete abortion with higher gestation should be consider for expectant management.

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