

## The Patterns of Clinical Presentation in Patients with Unsafe Miscarriage

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### ABSTRACT

**Objective:** To study the pattern of clinical presentation in patients with unsafe miscarriages.

**Study Design:** Case series study.

**Place and Duration of Study:** Department of Obstetrics and Gynaecology, Pak Emirates Military Hospital, Rawalpindi Pakistan, from Apr 2016 to Mar 2017.

**Methodology:** Thirty patients were included in this study after approval of the Ethical Committee. Detailed clinical assessment and clinical presentations of the cases were noted. Methods of miscarriage and associated complications were also noted. All cases were unbooked and referred cases.

**Results:** In this study, 30 patients with unsafe miscarriages were studied. The mean ages of the patients were 27.4±7.1 years. Most of the patients were married (93.3%, n=28,) multigravida (73.3%, n=22,) and in 1st trimester (76%, n=23). The method of the abortions was by instrumentations in 90%, (n=27) cases and vaginal tablets in only 10%(n=03) of the cases. The mean hospital delay was of 8.5±10.1 days. Abdominal pain was the commonest presentation in 90% of the patients (n=27). Acute abdomen with abdominal distension and constipation was seen in 53.3%(n=16) cases. There was a history of vaginal bleeding in 43.3%(n=13) cases, and 6.7% (n=2) of patients presented in shock. Mean vitals on admission were as pulse 108.7±13.4 per minute, temperature 99.4±2°F, respiratory rate 24.3±4 per minute, systolic and diastolic blood pressure were 103.5±14 mmHg and 68.6±10.4 mmHg respectively.

**Conclusion:** Illegally induced abortion remains a prominent cause of maternal morbidity in our society. However, high-quality post-abortion care will help a long way in saving many lives.

**Keywords:** Abortion, First trimester, Miscarriage, Multigravida.

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## INTRODUCTION

Unsafe abortion is defined as a procedure for terminating an unwanted pregnancy either by persons lacking the necessary skills, in an environment lacking minimal medical standards, or both.<sup>1</sup> Unsafe miscarriage is a major health issue in developing countries. The associated morbidity is much higher than mortality. The only woman with significant complications after unsafe abortions is likely to present to Hospital; therefore, optimal timely management, including surgical intervention, is indicated to improve outcomes. It is a major public health issue; worldwide, some 19 million unsafe miscarriages occur every year and account for 13% of all maternal deaths.<sup>2</sup> These deaths occur due to serious complications such as sepsis, haemorrhage, uterine perforation, gut and other visceral injuries and acute renal failure.<sup>3</sup> Among American women, 49% of pregnancies are unintended, and half of these are terminated by miscarriage.<sup>4</sup> The statistics show that the prevalence of poverty, illiteracy, grand multiparity and

non-practice of contraception are strong determinants of induced miscarriage.<sup>5</sup>

The reason women give for seeking miscarriage is often far more complex than simply not intending to become pregnant. While improved contraceptive use can help to reduce unintended pregnancy and miscarriage, some miscarriages will remain difficult to prevent because of limits to women's ability to determine and control all circumstances of their lives.<sup>6</sup>

Unsafe miscarriage contributes to maternal morbidity and mortality, increasing the burden on health workers and their resources.<sup>7</sup> In this modern age of obstetrics, induced miscarriage by a traditional birth attendant (TBA) is considered one of the most common causes of maternal morbidity and mortality.<sup>8</sup> To reduce unplanned pregnancy and unsafe miscarriage, and to improve women's health, increased access to contraceptive services is required for all women.<sup>9</sup>

Apart from a few studies on the contribution of miscarriage to maternal mortality, very limited information is available on the types of miscarriage providers and methods used for termination of pregnancy because both are important determinants of morbidity

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and mortality related to unsafe miscarriage. Fifty percent of all patients of unsafe miscarriages may suffer perforation of their uterus, yet most of these injuries will remain undiagnosed and untreated unless laparoscopic visualization is performed or till laparotomy of the patient is done.<sup>10</sup> The prevailing unsafe miscarriages in our country and other developing countries inspired us to conduct this study to highlight the gravity of the situation regarding miscarriage complications leading to maternal morbidity and mortality. This will help to increase awareness among females, couples and the community regarding the plight of women. This will also help in increasing the use of contraception.

### METHODOLOGY

This case series was conducted after approval from the Ethical Review Committee of the Hospital (No. A/01). All the patients presented in the Emergency or Outpatient Department of Obstetrics and Gynaecology of Military Hospital, Rawalpindi Pakistan, from April 2016 to March 2017 with a history of miscarriage were interviewed and those with a history of induced miscarriage were included in this study after taking informed consent.

**Inclusion Criteria:** All female patients of childbearing age presenting in Emergency or Outpatient Clinics of Obstetrics and Gynaecology with a history of induced miscarriage, either unbooked or referred cases from peripheral hospitals, were included in this study.

**Exclusion Criteria:** Female patients with a history of spontaneous miscarriage and associated medical illness, i.e., diabetes mellitus, hypertension, cardiac, liver, renal disorder or haematological disorder, were excluded from this study.

The relatives accompanying the patients were interviewed in case the patients were unable to give the proper history. Specific questions were asked regarding method, place, and abortifacient and presenting complaints, e.g. vaginal bleeding, abdominal pain, fever and constipation. A detailed clinical assessment of the patient was done, and signs of shock were noted.

Basic demographic information was obtained, including age, parity, marital status and ensuring similarities for basic factors like age, the multiparty, method used, place and abortionist. Data was collected on a specially designed proforma. Statistical Package for Social Sciences (SPSS) version 20.0 was used for the data analysis. The mean and standard deviation of numerical data was calculated. The qualitative data

(method, place, abortifacient and clinical presentation) were presented as frequency and percentages.

### RESULTS

A total of 30 patients who presented in the Emergency Department with unsafe miscarriages were studied. Patients belonged to different age groups between 13 years to 40 years of age, with a mean age of 27.4±7.1 years. Most of the patients were married (93.3%,n=28,) multigravida (73.3%,n=22,) and 1st trimester (76%,n=23). Induction of the abortions was done by instrumentation in 90%(n=27) and vaginal tablets with prostaglandins in only 10%(n=03) of the patients (Table-I).

**Table-I: Demographics of the Patients (n=30)**

Parameters	Frequency (%)
Age (Mean±SD)	27.4±7.1 years
≤ 19 years	04 (13.3)
20-25 years	11 (36.7)
26-30 years	06 (20.0)
31-35 years	07 (23.3)
36-40 years	02 (6.7)
<b>Marital Status</b>	
Married	28 (93.3)
Unmarried	02 (6.7)
<b>Parity</b>	
Primigravida	08 (26.7)
Multigravida	22 (73.3)
<b>Method of Miscarriages</b>	
Vaginal	03 (10.0)
Instrumental	27 (90.0)

The patients presented in the hospital with a delay of the mean of 8.5±10.1 days. The most common presentation was abdominal pain in 90% of the patients (n=27), followed by fever in 66.7%(n=20). Acute abdomen with abdominal distension and constipation was seen in 53.3%(n=16) cases. Bowel sounds were absent in 33%(n=10) of the patients. In addition, 43.3%(n=13) patients presented with vaginal bleeding, and 6.7%(n=2) patients came in shock secondary to septicemia or heavy vaginal bleeding (Table-II).

Mean vitals on admission were as pulse 108.7±13.4 per minute, temperature 99.4±2.0°F, respiratory rate 24.3±4.0 per minute, systolic blood pressure 103.5±14.0 mm Hg and diastolic blood pressure was 68.6±10.4mmHg respectively (Table-III).

### DISCUSSION

This study was carried out to see the different ways of presenting after unsafe miscarriages. Illegal abortions are associated with many complications and high morbidity and mortality in females. Every

woman faces at least one abortion in her life.<sup>11</sup> Different age groups are involved in different proportions. In our study, unsafe miscarriages were most common among the young group, with a mean age of 27.4±7 years. One study showed that the teenage group is mostly involved,<sup>12</sup> while another study conducted in Pakistan supports our age group and shows most patients fall around 27.4±7.1 years of age. Most of the patients in our study were multiparous (73.3%), as shown in another locally conducted study.<sup>13</sup>

**Table-II: Distribution of Cases by Delay Period and Clinical Presentations (n=30)**

Delay(days) (Mean±SD)	Frequency (%)
1-10 days	20 (83.3)
11-20days	01 (3.3)
21-30 days	02 (6.7)
>30 days	02 (6.7)
<b>Period of Gestation</b>	
1st trimester	23 (76.7)
2nd trimester	07 (23.3)
<b>Vaginal Bleeding</b>	
Yes	13 (43.3)
No	17 (56.7)
<b>Abdominal Pain</b>	
Yes	27 (90.0)
No	03 (10.0)
<b>Fever</b>	
Yes	20 (66.7)
No	10 (3.3)
<b>Shock</b>	
Yes	02 (6.7)
No	28 (93.3)
<b>Abdominal Distension</b>	
Yes	16 (53.3)
No	14 (46.7)
<b>Bowl Sounds</b>	
Yes	20 (66.7)
No	10 (33.3)

Abortion may be spontaneous or induced. Possible reasons for the induced abortion may be unwanted or illegal pregnancy. Unwanted pregnancies are due to a lack of family planning measures or failure of contraceptive methods.<sup>14</sup> Social status, religious factors and law restrictions are the main factors that push females to go for unsafe miscarriages. About 46 million out of 210 million pregnancies worldwide are terminated annually.<sup>15</sup> Out of these 19 million terminations are done by unsafe persons in an unsafe environment.<sup>16</sup> A systemic review showed that poverty, unemployment and domestic violence result in termination of pregnancy. The woman is helpless except to go to lay midwives.<sup>17</sup>

**Table-III: Clinical Presentation of the Patients (n=30)**

Clinical Presentation	Mean±SD
Pulse (Beats/min)	108.7±13.4
Systolic Blood Pressure (mmHg)	103.5±14.0
Diastolic Blood Pressure (mmHg)	68.6±10.4
Temperature (°F)	99.4±2.0
Respiratory rate/min	24.3±4.0

Different methods could be adopted to terminate the pregnancy, which includes instrumentation of the uterus or vagina, using different chemicals, and hitting the abdomen or uterine message.<sup>18</sup> Different regions and nations have their ways of doing it. In places where it has a legal cover, health professionals are performing it.<sup>19,20</sup> At the same time, strict law is not in its favour, non-professional and unethical practice is left to the patients. The unsafe practice is usually done by traditional birth attendants, LHVs, homoeopaths and paramedics.<sup>18</sup> In our study, instrumentation was used in 90% and vaginal tablets in only 10% of the patients. A study conducted locally in the same institution showed instrumentation in only 40% of the patients.<sup>19</sup> Another study conducted in Peshawar showed that 28.5% of patients used mechanical devices to induce abortion.<sup>21</sup> Therefore, the frequency of instrumental abortion varies from place to place, even in the same country and at different times. Thonneau et al. showed in their survey that 60% of the women in their study induced abortions themselves at home. Induced abortions conducted by trained persons in controlled environments are associated with minimal complications while untrained and unhygienic situations put the patients in many complications.<sup>22</sup>

Patients with septic abortions present in different ways. In our study, the most common presentation was abdominal pain in 90% of the patients, followed by fever in 66.7%. Acute abdomen with abdominal distension and constipation was present in 53.3% of patients. 43.3% of patients presented with vaginal bleeding. Only 6.7% of patients presented in shock secondary to septicemia or heavy vaginal bleeding.

There are several complications associated with these unsafe miscarriages, including death, haemorrhage, sepsis, cervical tear, pelvic abscess, uterine perforation with peritonitis, visceral injury, vaginal laceration and vesicovaginal fistulas. Munakampe *et al.* additionally correlates these unsafe miscarriages with pelvic inflammatory disease and infertility in up to 2% and 5% of patients.<sup>20</sup> One study conducted in Pakistan for unsafe abortions during one year showed that 59 admissions were made with the complication of

induced abortions. Furthermore, the mean age of the patients was 29 years, 95% were married and multiparous, 40% had secondary higher education, 85% went to unsafe help, and 40% ended up in uterine perforation due to instrumentations. 50% of these were using contraceptives, and 5% died from various complications.<sup>14</sup>

Naz *et al.* got 102 admissions for unsafe miscarriages in their unit during one year. Out of these, 66.6% had more than 3 kids, 9.8% were unmarried, 11.7% were because of contraceptive failure, and 21.57% were unaware of contraception. 14.7% were treated medically, 61.7% required evacuation and curettage, 23.5% required laparotomy, and one ended up in hysterectomy.<sup>23</sup>

Treatment of these abortions shares a major part of the health care system in the form of budget, admissions, and operative and intensive care facilities. Abortions conducted in a safe environment require a short hospital stay, while unsafe and complicated one stays longer. Half of the admissions in different obstetric units belong to unsafe abortions, and treating these patients takes many health system recourses.

The best solution to this unsafe practice is to promise the women health, awareness regarding contraceptive methods and access to a safe miscarriage facility. Abortive services, including misoprostol, can reduce the severity of abortion complications and hospital admissions. Increasing access to safe abortion services is the most effective way of preventing the burden of unsafe abortion, remains the high priority, and remains the high priority in developing countries.

## CONCLUSION

Our study has concluded that unsafe miscarriages are still among the major causes of maternal mortality in our society. We must change our attitudes toward this dilemma at a personal and national level. Family counselling at the gross root level is required regarding family planning and health care for women. Awareness campaigns are required on a door-to-door basis and via electronic media regarding basic health facilities and early visits to the Doctor in case of problems. Complications associated with these unsafe abortions stress the operative work and prolonged stay in intensive care units and wards. Improving preventive care and well-in-time safe interventions can dramatically reduce life-threatening complications. A well-designed, high-quality post-abortive care will ensure the safety of many lives.

**Conflict of Interest:** None.

### Author's Contribution:

Following authors have made substantial contributions to the manuscript as under:

FK: Data analysis, interpretation of data, approval of the final version to be published.

AT: Data acquisition, drafting the manuscript, approval of the final version to be published.

SMW: Conception, study design, drafting the manuscript, critical review, approval of the final version to be published.

TM: Interpretation of data, critical review, drafting the manuscript, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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