# **SEPTICEMIA;**AS A SEQUEL OF INDUCED MISCARRIAGE

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ABSTRACT... Induced Miscarriage is defined as the elective termination of pregnancy before 24 weeks of gestation. Objectives: To determine the frequency of sepsis associated with induced Miscarriage. Study Design: Cross-sectional survey. Setting: Department of Obstetrics and Gynaecology, Unit-II, Ghurki Trust Teaching Hospital, Lahore. Duration of Study: Six months from 25-12-08 to 24-06-09. Materials and Methods: Total 110 cases were taken. Complete history including parity and mode of admission was taken. All information was recorded on specially designed proforma. Results: A large number of patients turned out to be para 3-4 i.e. 87 (79%), 15 cases (13.7%) had the parity between 5-7 and only 8 cases (7.3%) were para 1-2 (Table-I). On analyzing the mode of admission it was found that 50 (45.4%) patients were admitted through out-patient department. 60 cases (54.6%) were admitted through emergency (Table-II). Finally the frequency of sepsis amongst women presenting with Miscarriage was calculated and it was found to be 25 (22.7%). 85 (77.3%) cases did not show any evidence of sepsis (Table-III). Conclusions: Illegal Miscarriages are a major contribution to septic morbidity leading to a large number of maternal deaths which is a dilemma in under developed countries like ours. Better public awareness and access to contraceptive measures has a definite role to play in improving the outcome.

Key words: Illegal Miscarriage, Sepsis, Induced Miscarriage

## INTRODUCTION

Induced Miscarriage is defined as the elective termination of pregnancy during the first or second trimester by surgical or medical means<sup>1</sup>.

According to Sedgh et al (2007), Miscarriage rates were lowest in Western Europe (12 per 1000 women). Rates were 17 per 1000 women in northern Europe, 18 per 1000 women in southern Europe, and 21 per 1000 women in northern America (USA and Canada). In 2003, 48% of all Miscarriages worldwide were unsafe, and more than 97% of all unsafe Miscarriages were in developing countries. There were 31 Miscarriages for every 100 livebirths worldwide in 2003, and this ratio was highest in Eastern Europe (105 for every 100 livebirths)<sup>2</sup>.

Induced Miscarriage has emerged as one of the major shareholder of maternal morbidity like vaginal discharge, fever and sepsis in third world countries<sup>3</sup>.

While incidence of sepsis was found to be 23% in a study carried out in Finland<sup>4</sup>. Induced Miscarriage is a major

ethical issue in Pakistan. As a result, unsafe Miscarriage occur and women are reluctant to report certain of their characteristics truthfully to health providers so what we see at tertiary care level is actually a small proportion of women undergoing this procedure.

The rationale of the study is to highlight the need of proper counseling of the patient regarding contraception to avoid unnecessary illegal Miscarriages and their inherent complications like sepsis.

# **OBJECTIVE**

To determine frequency of septic patients associated with induced Miscarriage.

# MATERIALS AND METHODS

It was a cross-sectional survey carried out in Department of Obstetrics and Gynaecology Unit II of Ghurki Trust Teaching Hospital, Lahore from 25-12-08 to 24-06-09.

All married women with history of induced Miscarriage

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within one month done by untrained person who presented in OPD or emergency were included in the study.

Women with systemic illness requiring therapeutic Miscarriage determined on the basis of history were excluded from the study.

# Sampling Technique

Non-probability purposive sampling

#### **Data Collection**

The selection of 110 patients was done from Department of Obstetrics and Gynaecology. Both emergency and OPD patients were chosen. Informed consent with religious and ethical considerations was taken. Detailed history for symptoms of sepsis like fever, offensive vaginal discharge, pain lower abdomen etc was taken. Thorough clinical examination was performed. Relevant Lab investigations like TLC were carried out to reach the diagnosis of sepsis and patients were managed accordingly.

## **RESULTS**

A large number of patients turned out to be para 3-4 i.e. 87 (79%), 15 cases (13.7%) had the parity between 5-7 and only 8 cases (7.3%) were para 1-2 (Table-I).

On analyzing the mode of admission it was found that 50 (45.4%) patients were admitted through out patient department. 60 cases (54.6%) were admitted through emergency (Table-II).

Finally the frequency of sepsis amongst women presenting with Miscarriage was calculated and it was found to be 25 (22.7%). 85 (77.3%) cases did not show any evidence of sepsis (Table-III).

## DISCUSSION

Induced Miscarriage comprises of a significant percentage of people attending the hospital. It is associated with enormous morbidity and major shareholder of this is illegal Miscarriage. This study was carried out to find out the frequency of sepsis among induced Miscarriages reporting at hospital. It sequel sepsis was found to be the leading infectious morbidity.

Table-I. Distribution of cases by parity			
Para	Number	%age	
P1-2	08	07.3	
P3-4	87	79.0	
P5-7	15	13.7	
Total	110	100.0	

Table-II. Distribution of cases by mode of admission			
Mode of admission	Number	%age	
Outdoor patients department	50	45.4	
Emergency	60	54.6	
Total	110	100.0	

Table-III. Distribution of cases by sepsis			
Sepsis	Number	%age	
Yes	25	22.7	
No	85	77.3	
Total	100	100.0	

This study emphasizes that certain recommendations can be made to improve the outcome by escalating public awareness and education.

Main bulk of the patients in current study who presented with induced Miscarriage already had 3-4 children. It was found that 79% of the patients were para 3-4 followed by 13.7% of cases with parity between 5 and 7 and only 7.3% of cases had 1-2 children. This fact is comparable to a study of induced Miscarriage in Denmark, which concluded that strongest factor associated with decision of having a Miscarriage was being single, followed by being 19 years or below and having 2 children or more<sup>5</sup>. At parity two women with two sons were much more likely to have induced Miscarriages than women with two daughter<sup>6</sup>.

Therefore, the effects of unplanned pregnancy were

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perceived to be gender specific. A study carried out at Khyber Teaching Hospital, Peshawar also revealed that 78.5% of patients with unsafe Miscarriages were multigravida<sup>7</sup> which is quite close to our observation where 79% of patients were para 3 or more.

Another study carried out at Turkey gave almost comparable figures highlighting the fact that 64.6% of patients gave "wanting no more children" as the primary reason for induced Miscarriage<sup>8</sup>. However, this reason was found at only 42% in rural areas in India which is quite low when compared with this study<sup>8</sup>.

Various studies have been carried out emphasizing the need for safer and better options for patients seeking induced Miscarriages. The need for safer, accessible and more affordable Miscarriage services in order to ensure the services to be available for all women has been underscored 10. In 2003, 48% of all Miscarriages worldwide were unsafe and more than 97% of all unsafe Miscarriages were in developing countries. Overall Miscarriage rates are similar in the developing and developed world, but unsafe Miscarriage is concentrated in developing countries. Ensuring that the need for contraception is met and that all Miscarriages are safe will reduce maternal mortality substantially and protect maternal health21.

All this data suggests that illegal Miscarriage entails high morbidity and effective methods need to be implied to reduce the burden on health care centers of preventable conditions. Our study has revealed that 25 out of 110 cases (22.7%) of induced Miscarriage had evidence of sepsis which was diagnosed on the basis of foul smelling vaginal discharge, temperature over 99°F and a rise in TLC. It is comparable with a study done at Elliot Institute which showed 23% of patients developing sepsis after illegal induced Miscarriage<sup>11</sup>. Complications are frequent and include infections, scepticaemia and sometime embolism.

Septic induced Miscarriage is an important contributor to maternal morbidity and mortality. About 57% of patients had one or other form of complications<sup>12</sup>. 75% came with scepticaemic shock and died which is quite high figure<sup>7</sup>.

Country laws also effect the trends of Miscarriage as many women obtain Miscarriages often under unsafe conditions and in response to unintended pregnancy (66/1000)<sup>13</sup>. Unsafe Miscarriage remains one of the major cause of maternal mortality in Nepal. Increasing public awareness about hazards of septic induced Miscarriage and provision of law and industrialization of trained manpower throughout the country would play a pivotal role in decreasing the incidence of septic induced Miscarriage<sup>13</sup>.

It is an established fact that induced Miscarriage carries a high risk of genital infections<sup>14</sup>.

In a nutshell therefore, induced Miscarriage is governed by variables which can be improved by improving awareness of the women towards contraceptive measures and practicing safe methods of Miscarriages to reduce the incidence of illegal Miscarriages and sepsis.

## **CONCLUSIONS**

Illegal Miscarriages are a major contribution to septic morbidity leading to a large number of maternal deaths which is a dilemma in underdeveloped countries like ours. Better public awareness and access to contraceptive measures will definitely improve the outcome.

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Article received on: 02/05/2012 Accepted for Publication: 18/10/2012 Received after proof reading: 03/11/2012

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#### **Article Citation:**

Tehseen S, Waheed A, Shami N. Septicemia; as a sequel of induced miscarriage. Professional Med J Dec 2012;19(6): 808-811.

"A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty."

Sir Winston Churchill