



## INDUCED ABORTION; MATERNAL OUTCOME

1. Assistant Professor of Obstetric and Gynecology Islam Medical College Sialkot
2. Assistant Professor of Obstetric and Gynecology Islam Medical College Sialkot
3. Bahria hospital, Defence Lahore

**Correspondence Address:**

**Dr. Uzma Asif**

House No: 24--B, Askari – 02, B  
Sialkot Cantt  
druzma830@yahoo.co.uk

**Article received on:**

05/07/2014

**Accepted for publication:**

09/09/2014

**Received after proof reading:**

15/12/2014

### INTRODUCTION

In the developing world about half a million women die each year as a result of complications during pregnancy and childbirth<sup>1</sup>. An induced abortion has been a major cause of maternal mortality and morbidity<sup>2</sup>. Abortion has been a subject of debate since centuries and considered as a social taboo and against social, cultural and religious norms. Lack of health education and family planning facilities add up to the problem. In--spite of all social and legal restrictions, a large number of women resort to unsafe abortion practices thus endangering their lives. It accounts for more than 10% of maternal deaths and a very high rate of

**Dr. Uzma Asif<sup>1</sup>, Dr. Asma Mudassir<sup>2</sup>, Salma Zaman<sup>3</sup>**

**ABSTRACT... Objective:** To determine the frequency and types of various complications and in-- hospital maternal outcome in induced abortion. **Study design:** An observational descriptive study. **Place and Duration:** Islam Medical College Sialkot, from January 2011 to January 2013. **Methods and Materials:** A descriptive study, 130 patients of induced abortion were selected by purposive convenient method. All patients with history of induced abortion were included. All patients with history of spontaneous or medically induced abortions were excluded. Patients were asked who performed the abortion, reason for seeking abortion, techniques and material used. Patients underwent a thorough clinical examination. Routine investigations, abdominal ultrasonography were performed. Evacuation of retained products of conception and Laparotomy was done if required. Pre--designed research proforma was used. SPSS--17 was used to analyze data. Frequency and percentages were calculated for categorical variables. Means and standard deviations were calculated for quantitative data like age, blood pressures, gestational age, and lab parameters. **Results:** Majority of the patients 63/130 were in the age group 31years and above, 123 patients were married while 07 patients were unmarried., 76.92% (100/130) patients were illiterate, , 52.30% (68/130) of patients were from the urban and 47.69% (62/130) were from the rural areas. In 126 (96.92%) cases, abortion was done to get unwanted pregnancies terminated. Majority of cases were induced by unskilled persons. Majority, 51.53%(67/130) were para 5 and above. Commonest method employed was instrumentation which was used in 93.07% cases. Hemorrhage was seen in 69.23%, fever in 50% abdominal pain in 16.19%. Evacuation and curettage was done in 91 (70%) cases, laparotomy in 25 (19.23%) and only 14 (10.76%) were managed conservatively. Twenty five patients who underwent laparotomy had gut and uterine injuries. Seven women (5.38%) died during the study due to septicaemia and DIC. Postoperative complications occurred in 8 (6.15%) patients. **Conclusions:** Maternal mortality and morbidity due to induced abortion is still very high. Being a preventable cause of death, it can be controlled by proper implementations of family planning programs, training of midwives and easy access to contraceptive methods.

**Key words:**

Abortion, induced abortion , traditional birth attendants, septic abortion, unwanted pregnancy, abortion laws.

**Article Citation:** Asif U, Mudassir A, Zaman S. Induced abortion; maternal outcome. Professional Med J 2014; 21(6):1098-1102.

maternal morbidity<sup>3,4</sup>. Information is lacking various aspects of induced abortion particularly methods and techniques employed due to medico --legal reasons as women undergoing an attempt of abortion keep it secret, and even on hospital admission, try to hide the facts about any intervention thus exact prevalence of abortion in the society remains unknown. A local study done by Rehan N showed that majority (67.3%) of the health care providers also had an unfavourable attitude towards abortion. Only 25% health care providers favoured induced abortion<sup>5</sup>.

Induced abortion is artificially induced expulsion of

products of conception before the age of viability (in Pakistan age of viability is taken as 28 weeks of gestation). WHO estimates show that unsafe induced abortion is responsible for one quarter of maternal deaths world over<sup>6</sup>. An earlier study in 1999 showed that 13% maternal deaths were due to abortions and 50% among these were because of sepsis<sup>7</sup>.

In Pakistan even today septic abortion remains one of the major obstetric complications. A large number of cases of induced abortion are illegally performed which may prove fatal sometimes. Induced abortion is usually attempted by untrained traditional birth attendants (TBA) and Lady Health Workers (LHV) who employ unhygienic and dangerous methods resulting into life threatening complications like cervical and vaginal tears, septicaemia, hemorrhagic shock, peritonitis, renal failure and disseminated intravascular coagulation (DIC)<sup>8</sup>. Apart from serious mortality, a large proportion of women also suffer from long term sequel of abortion, common being anemia, infertility, pelvic inflammatory diseases and chronic pelvic pain<sup>7</sup>.

The aim of this study was to know the frequency and types of various complications and the in-hospital maternal outcome in induced abortion.

## MATERIAL AND METHODS

This study was conducted at Obstetric and Gynaecology Unit of Islam Medical college from January 2011 --January 2013. It was a descriptive study and a purposive convenient sampling was used. All patients with history of induced abortion were included in the study. Admissions were either through the out patient or emergency. All patients with history of spontaneous abortion and hospital induced abortions for medical reasons were excluded. On admission, a detailed clinical history was taken. Patients were asked who performed the abortion, whether at home, at private clinic or at hospital. Reason for seeking abortion were also inquired. Surgical or medical techniques or material used were asked in detail. Gestational age was calculated from last normal period, positive urine pregnancy test or the earliest ultrasound

available. Time lapsed between the abortion attempts and seeking the medical treatment was accurately determined. Patients underwent a thorough clinical examination including vital signs, general physical examination, abdominal and pelvic examination. A special attention was given to condition of vagina, cervix and Uterus. Fundal height, abdominal tenderness, signs of peritonitis and shifting dullness were noted. In addition to baseline routine investigations blood culture, high vaginal swab for culture and urine culture were also performed. Abdominal ultrasonography was done and peritoneal fluid was also aspirated if indicated for lab examination and culture. Patients were given intravenous fluids and whole blood if required. Broad-spectrum antibiotics along with anaerobic cover were given. Laparotomy was done in case of uterine or gut perforation. Evacuation of retained products of conception was done by dilatation and curettage.

All study variables were recorded on a pre-designed research proforma. Statistical Package for Social sciences (SPSS--17) was used to analyze data. Frequency and percentages were calculated for categorical variables like parity, education level, methods used, reasons for abortion, and socioeconomic status. Means and standard deviations were calculated for quantitative data like age, blood pressures, gestational age, and lab parameters. The association of various variables along with statistical significance were calculated using Pearson Chi Square tests.

## RESULTS

A total of 130 cases of induced abortion were studied. Majority of the patients 48.46% (63/130) were in the age group 31 years and above (Table-I). In marital status, 123 patients were married while 07 patients were unmarried. In the relationship of induced abortion and educational status, it was found that 76.92% (100/130) patients were illiterate, 17.69% (23/130) were under matric and only 5.38% (7/130) were above matric. As far as residential status is concerned, 52.30% (68/130) of such patients were from the urban and 47.69% (62/130) were from the rural areas. (Table-I)

| Parameter                 | No. of cases | Percentage |
|---------------------------|--------------|------------|
| <b>Age in years</b>       |              |            |
| ≤ 20                      | 10           | 7.69%      |
| 21--30                    | 55           | 42.30%     |
| ≥31                       | 63           | 48.46%     |
| <b>Marital Status</b>     |              |            |
| Married                   | 123          | 94.61%     |
| Unmarried                 | 07           | 5.38%      |
| <b>Parity</b>             |              |            |
| Parity 1                  | 15           | 11.53%     |
| Parity 2--4               | 35           | 26.92      |
| Parity ≥5                 | 67           | 51.53%     |
| <b>Gestational age</b>    |              |            |
| ≤10 weeks                 | 84           | 64.61%     |
| 10--20 weeks              | 34           | 26.15%     |
| ≥20 weeks                 | 12           | 09.23%     |
| <b>Education status</b>   |              |            |
| Uneducated                | 100          | 76.92%     |
| Under matric              | 23           | 17.69%     |
| Matric                    | 07           | 5.38%      |
| <b>Residential status</b> |              |            |
| Urban                     | 68           | 52.30%     |
| Rural                     | 62           | 47.69%     |
| <b>Abortion method</b>    |              |            |
| Instrumentation           | 121          | 93.07%     |
| Abortion stick            | 04           | 03.07%     |
| Local irritant            | 05           | 03.84%     |

**Table-I. Induced Abortion – Baseline Characteristics (n=130)**

The main reason for inducing abortion was unwanted pregnancy. In 126 (96.92%) cases, abortion was done to get unwanted pregnancies terminated while only 04 (3.08%) cases were done for medical reasons. It was observed that majority of cases were induced by unskilled persons while others were induced by semiskilled TBAs, LHVs, nurses, and in few cases by doctors. It was seen that patients having grand parity sought abortion mostly as 51.53% (67/130) of the patients were para 5 and above, 26.92% (35/130) were para 2--4, only 11.53% were para 1 (Table-I). The mean gestational age at which the majority of abortion was sought was 10 weeks; there were 84 (64.61%) of such cases, 34 (26.15%) cases were between 11--20 weeks, and only 12 (9.23%) were 20 weeks and above (Table-I).

There were different methods employed for induction of abortion. Commonest method was instrumentation which was used in 93.07% cases, 3.07 % cases were induced by abortion sticks,

and in 3.84% cases local irritants were used. (Table-I).

Commonest presenting complaint was hemorrhage in 69.23% (90/130), fever in 50% (65/130), abdominal pain 16.19% (22/130), three (2.3%) patient presented with anuria and fever (Table-II)

| Complications              | No of cases | %age  |
|----------------------------|-------------|-------|
| Vaginal bleeding only      | 65          | 50%   |
| Vaginal bleeding and Fever | 25          | 19.3% |
| Abdominal Pain and fever   | 22          | 16.9% |
| Fever only                 | 15          | 11.5% |
| Fever and Anuria           | 03          | 2.3%  |

**Table-II. Induced Abortion -- Clinical Presentations (n=130)**

In the methods used for management of the patients, 91 (70%) had evacuation of retained products of conception (ERPOC), 25 (19.23%) underwent laparotomy and only 14 (10.76%) were managed conservatively (Table-III). Twenty five patients who underwent laparotomy had various types of gut and uterine injuries as explained in Table-IV.

| Managements                  | No of cases | %age   |
|------------------------------|-------------|--------|
| Evacuation and curettage     | 91          | 70%    |
| Laparotomy for acute abdomen | 25          | 19.23% |
| Conservative                 | 14          | 10.76% |

**Table-III. Induced Abortion -- Management Approach (n=130)**

Seven women (5.38%) died during the study. Two of them died within 02 hours after admission because of generalized peritonitis and severe septicemia. Four women died of visceral injuries, septicemia, and multiorgan failure. These four patients underwent laparotomy and were found to have multiple ileal tears along with uterine perforation. One woman died of disseminated intravascular coagulation leading to acute renal failure. Postoperative complications occurred in 8 (6.15%) patients, wound infection in 4, wound dehiscence in 2 and subacute intestinal obstruction in 2 patients which did not require any further surgical intervention.

| Laparotomy findings                   | No | %age |
|---------------------------------------|----|------|
| Uterine & Gut Perforation             | 14 | 56%  |
| Uterine Perforation only              | 09 | 36%  |
| Uterine Perforation with Tubal damage | 01 | 04%  |
| Uterine Gangrene                      | 01 | 04%  |

**Table-IV. Induced Abortion --Findings on Laparotomy (n=25)**

## DISCUSSION

Developed countries have legalized the abortion and it is also being used as a method of birth control. In developing countries high mortality and morbidity seen in cases of induced abortions is due to untrained quacks conducting abortions in secret and illegal way. Recent estimates indicate that about 50 million pregnancies are terminated by induced abortion each year. One third of these abortions are performed in unsafe environment, resulting about 100,000 deaths each year and many more women have complications resulting in long term consequences for their health<sup>1</sup>. The exact incidence of induced abortion in Pakistan is not known however there has been a trend of increased rate of induced abortion among married women over the last 20 years<sup>2</sup>. Out of 4069 patients who presented to obstetrics and gynecology unit 1 from January 2011–January 2013, 130 patients came with history of induced abortion. This makes abortion cases as 3.19% of the total patients admitted during this period. This percentage is similar to the other studies of abortion conducted in other parts of Pakistan which show the percentage of abortion as around 03%<sup>3,4,5</sup>. This figure is also comparable with a study done in India<sup>6</sup>, and another study done in Europe showing Eastern Europe having higher rate while Western Europe having lower rates of abortion<sup>7</sup>. However the actual incidence of induced abortion in our country is likely to be much higher as only those patients who develop complications report to hospitals. Thus the main bulk of patients may remain unreported.

In our study majority of cases, 48.46% (63/ 130) were above the 30 years of age. Parity was 5 and above in 67/130 (51.57%) of cases. These results are comparable with a local study about induced abortion done by Gulshan Ara Saeed which

showed grand multi para being 57.8%<sup>9</sup>. In our study instrumentation history to induce abortion was present in 121/130 (93%) of cases, which is higher than the previously mentioned study<sup>9</sup> and another local study by Tayyab and Samad<sup>7</sup>. This difference may be due to factor that both studies were done a decade ago.

The most common clinical presentation in our study was vaginal bleed (69.23%) and commonest visceral injury was uterine and bowel perforation (18.46 %). This figure is consistent with findings of above mentioned study<sup>9</sup> but higher as compared to another study mentioned above<sup>7</sup>.

Regarding management of induced abortion cases, evacuation and curettage was done in 70% cases (90/130) and 19.23% (25/130) underwent laparotomy for uterine or bowel injuries while only 10.76% (14/130) had conservative management and recovered without any surgical intervention. These findings in our study are comparable with a study by Naib JM which showed almost the same rate of evacuation and curettage however rate of laparotomy was much higher as compared to our study (18.46% vs 40%)<sup>8</sup>.

Seven patients died in our study (6.97%). This mortality rate is consistent with findings in a study by Naib JM et al (7.5%) but lower as compared to a local study on induced abortion conducted at University Teaching Hospital in Karachi<sup>9</sup>. Another study done at Lahore by Rashid and Tariq showed maternal mortality as 16.09% which is higher as compared to our study<sup>10</sup>. This difference might be due to early admission, prompt intervention and better care at our tertiary referral hospital and less complicated patients at the time of admissions.

## CONCLUSIONS

Maternal mortality and morbidity due to induced abortion is still very high. Being a preventable cause of death, it can be controlled by proper implementations of family planning programs. TBAs have existed for a long time in our society and will continue to play a significant role in society until trained midwives replace them. There is a dire need to invest in the training of



midwives. Review of legislation by legislators and religious scholars is urgently required and long awaited keeping in mind the requirements of modern era, increasing western influences, population explosion and ongoing practices of induced abortion despite legal prohibition. The Government should act immediately to prevent the deaths by providing health education and better contraceptive facilities. As a signatory to the International Conference of Population and Development in 1994, Pakistan has already accepted the declaration of "reproduction and sexual health as a right for both men and women"<sup>11</sup>.  
**Copyright(c) 09 Sep, 2014.**

## REFERENCES

1. Fauveau V, Mamdami M, Steinglass R, Koblinsky M. **Maternal tetanus:magnitude, epidemiology and potential control measures.** Int J Gynaecol Obstet 1993; 40:3—12.
2. Westhoff C, Rosen field A. **The impact on women's health.** Curr Opin Obstet Gynaecol; 1993; 5:793--7.
3. World Health Organization. **Complications of abortion: technical and managerial guidelines for prevention and treatment.** Geneva: WHO 1995, p. 14.
4. Rehan N, Inayatullah A, Chaudhary I. **Characteristics of Pakistani women seeking induced abortion and profile of abortion Clinics.** J Womens Health Gend Based Med 2001;10:805--10.
5. Rehan N. **Attitudes of health care providers to induced Abortion in Pakistan.** J Pak Med Assoc 2003;53(7):293--6.
6. Dixon--MuellerR. **Abortion Policy and women's health in developing countries** 20(2); 297--314.
7. Thaver IH, Lalji N. **Seeking help for abortion: problems in accessibility and quality in family planning services.** J Coll Physicians Surg Pakistan 1999; 9: 8--10.
8. Tayyab S, Samad NJ. **Illegally induced abortion; a study of 37 cases.** J Coll Physicians Surg Pakistan 1996; 6: 104--6.
9. Chohan MA, Ansari A, Yousaf W, Rana S. **Induced abortion, presentation and complications.** Pakistan J Obstet Gynecol 1999; 12:78--82.
10. Wadhwa, M. **Marital status and abortion.** Health Rep 1997; 9(3): 19-- 26.
11. Saeed GA. **Complications of induced septic abortions and risk factors.** J Coll Physicians Surg Pakistan 2002; 12 (12): 738--740.
12. Najmi RS. **Complications attributed to illicit abortions.** J Pak Med Assoc 1998; 48:42--4.
13. Zaidi S, Mastoor S, Jaffery HF, Parveen R. **Maternal deaths in induced abortions.** J Coll Physicians Surg Pakistan 1993; 3:20--3.
14. Panda SN, Bandyopadhyay S. **A study on septic abortion at a tertiary hospital.[Internet].** Available at <http://www.obgyn.net/surgical--gynecology/study--septic--abortion--tertiary--hospital>
15. Pinter B. **Medico-- legal aspects of abortion in Europe.** Eur J Contracept Reprod Health Care 2002 Mar;7(1):15—9
16. Jamila M. Naib, Muhammad Ilyas Siddiqui, Bilqis Afridi. **A review of septic induced Abortion cases in one year at Khyber Teaching Hospital, Peshawar.** J Ayub Med Coll 2004;16(3):59--62.
17. Shah N , Hossain N, Noonari M, Khan N H. **Maternal mortality and morbidity of unsafe abortion in a university teaching hospital of Karachi.** J Pak Med Assoc 2011;61(6):582--6.
18. Rashid M, Tariq R. **Unsafe abortion: unnecessary maternal morbidity and mortality.** Biomedica 2010;26(2):114--7.
19. United Nations Population Fund. **The state in the world's population.** New York: United Nations Population Fund 1997.