



Induced Abortion and its complications

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Abstract

To study characteristics of women undergoing induced abortion and associated complications. Case series study. Department of Obstetrics and Gynecology of Lahore General Hospital, Pakistan. 100 patients of reproductive age providing history of induced abortion during a period of 1 year 3 months were included in study and statistically analyzed. Mean age of the patients was 31.02 ± 5.83 years (18-45 years). Most of the study population (98%) comprised of married, multi parous women (mean parity 4.95 ± 2.12 children). Those who procured abortion during 1st trimester of pregnancy were 86%. Induced abortions were mostly carried out (61%) by Dais (traditional birth attendants) while 15% and 10% by local lady health visitors and nurses respectively. In 2% of cases doctors induced abortion and 2% were self-induced. 10% did not disclose the operator. Vaginal bleeding is the most common symptom, present in 82% of cases followed by abdominal pain in 51% and fever in 24%. Most frequent complication was anemia (96%), followed by hypo volumic shock (57%). Sepsis was present in 55% of cases, peritonitis in 19%, renal failure in 19%, disseminated intravascular coagulation in 11%, hepatic dysfunction in 6% of cases and direct maternal death in 3%. Married multi parous women who already completed their families are the main who go for pregnancy termination. Induced abortions are mostly performed by untrained personnel in unhygienic conditions. Delay in reporting to hospital results in morbid complications.

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Introduction

Approximately 205 million pregnancies occur worldwide each year and 42 million of these pregnancies end in abortion. At least half of these abortions are “safe” and the others are “unsafe”. Additionally, one in eight pregnancy-related deaths is the result of unsafe abortion⁽¹⁾. Pakistan is one of the last nations in South Asia to show a sustained reduction in fertility. Women on average had six or more births in their reproductive life during 1960-1980 (as represented by the “total fertility

rate” TFR). Since 1980s, TFR has gradually reduced, with an estimate of four per women by 2008^(2,3) and 3.65 per woman by the year 2016⁽⁴⁾. However the reduction in fertility has not been accompanied by a concomitant reduction in unplanned or unwanted pregnancies. A large fraction of married women wish to avoid pregnancy in order to limit their number of births but they are not aware of any contraceptive method and if aware do not know the suitable one. Even health care providers have limited knowledge about how to advise about particular method of contraception to individual couples. This is

especially true for emergency contraception which can play a pivotal role is avoiding unwanted pregnancies⁽⁵⁾. When a woman does not want another child yet becomes pregnant, she may seek an induce abortion. Unsafe abortion is one of the most neglected problems of health care in developing countries where 6.9 per 1000 women are treated for complications related to unsafe abortion. This rate rises to 7.4 per 1000 women when countries where abortion is legal and widely accessible were excluded⁽⁶⁾.

Pakistan is in South Asian subcontinent, covers an area of 803,943 square km and according to population council, population is 192 million with an annual increase of 2.6%. Majority of the population is Muslim and abortion is illegal and restricted by law. Health care providers of Pakistan are aware of abortion laws in the country and most of them do not want or stress any change the existing laws⁽⁷⁾.

A study conducted on induced abortion and an unintended pregnancy in Pakistan is an eye-opener to health care planners. It came out that 50 out of every 1,000 women of reproductive age terminate their pregnancies and this rate has increased from the last decade when 28/1000 women opted to have induced abortion. It showed that an estimated 2.2 million abortions were occurring in Pakistan annually⁽⁸⁾.

It provided evidence that three quarters of women who seek abortion do so due to contraceptive failure.

Lack of awareness in women and health care providers about contraceptive methods⁽⁵⁾, negative perception towards it, inconsistent use, economic burdens, gender discrimination⁽⁹⁾, social and religious pressure^(7,10) and domestic violence⁽¹¹⁾ are commonly found reasons of getting induced abortion.

Majority of health care providers have an unfavorable attitude towards induce abortion, only 25% support it worldwide⁽¹²⁾. Those who have safe abortion practices and know the laws governing induce abortion usually have positive attitude toward it⁽¹³⁾. Access to abortion is highly restricted; the majority of these procedures take place under clandestine and often unsafe conditions. The risk of complications and death from unsafe abortion is inversely proportional to the provider's skill, conditions for performing the procedure, and availability of appropriate equipment. Social stigma, legal and religious issues, and fears can prevent women from accessing post-abortion care, which is a critical for saving lives⁽¹⁴⁾.

This study will not only help finding out the socio demographics of the women opting for induced abortion but will also highlight its consequences. It is expected to provide baseline data for further studies in this area.

Materials and Methods

This is a case series study performed at Department of Obstetrics and Gynecology, Unit 2 of Lahore General Hospital, Pakistan. Study period started from October 2014 to February 2015. One hundred women of reproductive aged (18-45 years) providing history of getting induced abortion included in the study. Women who consented to share their information were considered. Variables used were age, parity, gestational age, operator, time interval between getting induced abortion and presentation, management procedures required and arising complications. Statistical analysis was performed using SPSS by descriptive statistics.

Results and Discussion

The age of the women getting their pregnancy terminated varied between 18-45 years. Only 02% of patients studied were in age group 15-20 years. 98% of study population comprised of married women. Only 2% were single. 80 % of the patients had more than two children before. Two third had previous experience of getting induced abortion. Most did not know the exact gestational age and went for abortion soon after realization that they were pregnant. Dilation and curettage (D&C) was the most frequently used method followed by some instrumentation or use of foreign body insertions. The time interval between abortion and reporting to the health facility depended upon the nature and severity of the symptoms. 62% presented within first week and 24% during second week of getting abortion induced. Vaginal bleeding was the most common symptom present in 82% of cases, followed by abdominal pain present in 51%, fever in 24%. 9% of patients were brought in unconscious state. The most frequently observed complication of induced abortion was anemia: mean Hemoglobin of the patients was 7.8 ± 1.4 g/dl. 96% patients had hemoglobin below 10 g/dl and 48% below 8.0 g/dl and most of these required blood transfusion. Hemoglobin was observed as low as 3.0 g/dl. Second frequent complication was hypo volumic shock present in 57% of cases. Sepsis was present in 55% of cases, peritonitis in 19%, renal failure in 19%, DIC in 11%, hepatic dysfunction in 6% of cases and death in 03%. Fifteen patients required laparotomy while 74 had evacuation and curettage (E&C) and 11 managed

conservatively. One patient among those who underwent laparotomy had hysterectomy. Of the laparotomy patients 68.8% had perforation of uterus. The most common site of perforation was posterior uterine wall. Bowel injury was found in 40% (6) of patients who underwent laparotomy. The most frequently affected portion was sigmoid colon 03 patients (20%) followed by ileum in 02(13.3%) and jejunum in 01 (6.7%). Bladder was not injured in any case. Six patients out of 15 developed wound infection. Staphylococcus aureus was most frequently found from wound cultures.

Four out of 100 patients studied died as a consequence. Three were direct maternal deaths as a result of complications and one indirect (patient presented after induced abortion, abdominal tenderness and mass, considered to be hematoma while it was metastatic ovarian tumor). Patient expired of acute respiratory distress syndrome (ARDS) after laparotomy. In all mortalities patients were multi parous and abortion was conducted by Dais by instrumentation. Two patients expired on first day of admission. All direct maternal death patients were anemic (Hb. 6.8, 6.0, 3.0 g/dl) and presented in shock state (two patients had septic shock and one hypovolumic). During the same period of time 2541 patients were admitted. 1528 delivered and 08 expired. Maternal mortality ratio was 523 per 1, 00,000 deliveries. Contribution of induced abortion to maternal mortality ratio was 37%.

Lahore General Hospital is a tertiary care hospital having a well-organized and developed Gynecology and obstetrics care system, located in close vicinity of peripheral areas of the Lahore and Qasur. Patient population presenting to this setting is generally of complicated cases of poor, uneducated women, referred after being handled by untrained dais in a setting with unhygienic conditions. That is why majority of the women presented with one or more complications.

All women presented in emergency and none of them was a booked case. Demographic profile of the women getting induced abortion showed that they were young at the peak of their reproductive lives. Maximum patients belonged to age group 26-35 years, in contrast to the study from Kenya⁽¹⁵⁾ where the highest percentage of induced abortion seekers were below 25 years. It shows that the age of women going for induce abortion in South Asia is higher than in Africa where the trend of induce abortion is more towards young age, might be due to early marriages or early sex involvement. Abortion surveillance --- United States, 2008⁽¹⁶⁾ also showed

decreasing rates of induced abortions in adolescents and young women less than 25 years while increase in abortion rate among women of more than 35 years.

Comparison of parity of the patients with other studies⁽¹⁷⁾ figured out that in Pakistan multi parous women seek abortion more frequently than nulli or primi parous women. It expresses the lack and need of effective contraception care system. Majority of patients getting induce abortion are those who have completed their families and do not want more children, but do not have either access or knowledge regarding effective and affordable contraception. Directing efforts to prevent unwanted pregnancies is suggested to prevent induce abortion.

Major bulk of patients 96% in this study had previously undergone induced abortion by the same or alike facility and had survived out of it. Most women terminated pregnancy during first trimester, soon after realizing that they were pregnant. Some women went for it only at suspicion of pregnancy, before getting it confirmed by any pregnancy test. With introduction of different methods available to terminate pregnancies the distribution of getting induced abortion is shifting toward earlier gestational ages, with the increase of percentage of abortions performed at ≤ 6 weeks' gestation⁽¹⁶⁾.

A small percentage of all induced abortions it is associated with a disproportionately large amount of morbidity. Besides that induce abortions have remarkable contribution in maternal morbidity and mortality⁽¹⁸⁾. This is because of the delay in seeking medical advice. Most of the patient present with symptoms of shock or generalized peritonitis when simple procedure like E&C or conservative management becomes insufficient and major surgery like laparotomy, uterine rent repair, salpingectomy, salpingo-ophrectomy, hysterotomy, bowel surgery and hysterectomy becomes crucial. The results of surgery are sometimes poor due to overwhelming sepsis^(15, 19).

Dilatation and curettage is the most popular method of terminating pregnancy in our country as well as west (16). While foreign body insertion inside vagina or uterus was not uncommon.

It included sticks needles, cotton and intra uterine devices etc. medical abortion was seen only in few cases. While as most abortions were performed during first trimester when patients were eligible for medical termination, they were subjected to surgical methods.

Fig.1

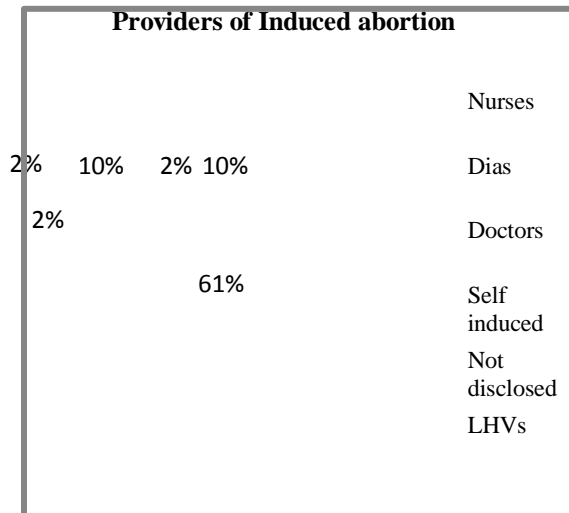


Fig.2

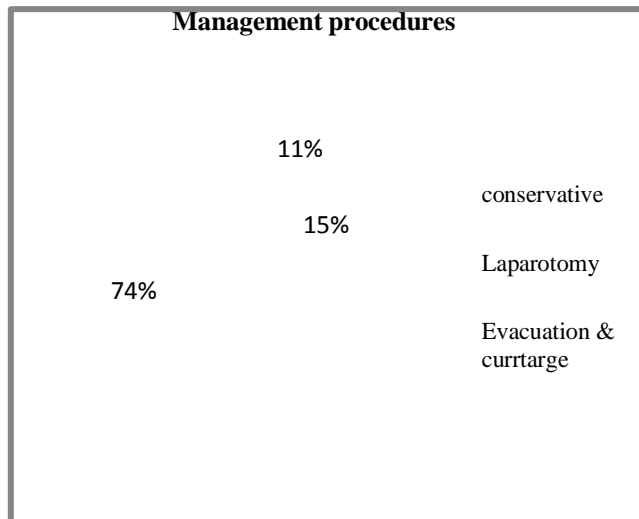


Fig.3 Hemoglobin concentration of cases

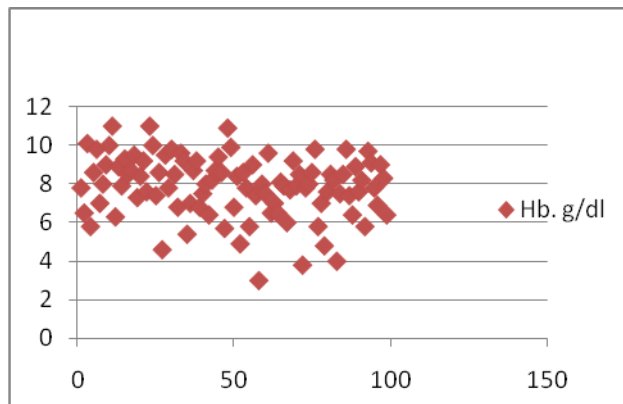


Table.1 Characteristics of women presented with induced abortion

n=100

Profile	Mean± SD	Largest group	Percentage
Age(years)	31.02±5.83	26- 30 years	38
Parity	4.90± 2.17	Para % or <	52
Previous abortions	1.39±0.7	01 abortion	62
Gestational age	8.05±2.20	1 st trimester	86
Hospital stay	3.09±3.31	7 days	90
Severity of anemia(Hb.)	7.8±1.4	Moderate anemia	71
Admission interval after induced abortion(days)	8.0±6.6	Within first week	62

Unsafe abortion currently poses great challenges to women's reproductive health especially in our country where contraception is scarcely practiced and abortion is illegal, restricted and most women get it as a method of contraception. Most of the women present with vaginal bleeding followed by abdominal pain and fever^(15, 19). Presentation was dependent on nature and severity of complaints. Almost half of the patients presented with hypotension and 9% in unconscious state.

Approximately two thirds of patients had incomplete abortion and were managed by evacuation of the retained products of conception and curettage.

Patients with minor complications were discharged home within three days while with major complications had hospital stay of more than three days. 15% of the study population required exploratory laparotomy because of localized or generalized peritonitis.

Pus either frank or localized in peritoneal cavity was commonly found in 3/4th of the patients who underwent laparotomy. In two third of laparoscopies, uterine perforation were noted which required repair, that was successful. Only in one case rent was not repairable and required hysterectomy. Second more common internal organ injury was bowel perforation present in one thirds (05 cases). In many of those cases serosal rents were there. In one cases bowel resection and end to end repair was done.

Although anemia was the most frequent complication in other studies as well but its percentage contribution was less. This anemia in is contributed by nutritional deficiency, successive births without adequate birth spacing and poor health care of women. Hemorrhage resulting in hypovolumic shock was the second most frequent complication. Situation was graver in the present study as the study population was already anemic with depleted iron stores, so compensatory responses

were not very good. These patients needed immediate replacement of fluids and many blood transfusions to save the lives. Sepsis was present in more than half (55%) of study population. Broad spectrum antibiotics were required for many days to overcome. Morbidity (complications, need for laparotomy, prolonged hospital stay etc) and mortality figures were more commonly present in these septicemia patients. 11% of patients developed DIC (homeostasis, maleena, frank bleeding from vagina or bleeding from prick sites) either due to sepsis or excessive bleeding. Multiple fresh bloods and fresh frozen plasma transfusions were required to reverse it. This was severe and could not be reversed in three patients who died. Acute renal failure was also a moribund factor. 19% of total had oliguria, and half of them had renal failure. One of those required haemodialysis.

04 out of 100 patients studied lost their lives as a consequence. All these fatal cases got abortion induced from Dais and referred late when patient's condition was out of their control. These patients were brought to the hospital in critical condition. DIC and renal failure were already set in. two of those cases died within 24 hours of hospital admission. One of the attributed deaths was indirect, in which case patient was received with abdominal mass after induced abortion. It was considered as hematoma, laparotomy done and it was found to be ovarian tumor with metastasis at mesentery and liver. She died later on of ARDS.

Recommendations

Morbidity and mortality associated with induced abortion is high but preventable. Awareness about contraception and hazards of unsafe abortion must be created to prevent unwanted pregnancies.

Contraception should be made available, accessible, acceptable and affordable to all such women. Awareness

about safety, efficacy and availability of emergency contraception needs to be generated.

Women who experience one induce abortion are more susceptible to have repeat induce abortion. Post abortion counseling, education and family planning services should be offered promptly, which may help to avoid repeat abortion.

Training of health providers on safe abortion practices and reproductive rights are essential to reduce maternal mortality.

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