THE RISK FACTORS AND IMMEDIATE COMPLICATIONS OF SEPTIC INDUCED ABORTION

SAIRA SAEED

ABSTRACT

OBJECTIVE: To identify the risk factors and immediate complications of Septic induced abortion.

STUDY DESIGN: A descriptive study

PLACE AND DURATION: Department of Obstetrics and Gynecology, Unit 1 civil Hospital Karachi, affiliated with Dow University of Health Sciences from 1st August 2006 to 15th March 2008.

METHODOLOGY: The patients who were admitted with history of induced abortion were interviewed in privacy and after getting informed verbal consent, Age, marital status, parity, Socio-economic status, reasons for inducing abortion, status of abortionist and method for inducing abortion were entered in specified proforma. Then severity of complications management given to patient and their prognosis were noted.

RESULTS: Total of 50 women admitted with history of induced abortion during study period. Induced abortion was common in 21—30 years age group 62% (n= 31), married 94% (n=47), grand multiparous 40% (n=20) and lower middle class 56% (n= 28). Most of women 48% (n= 24) did not have history of abortion in past and 54% (n= 27) of women terminated their pregnancies at gestational age of 6—10 weeks. 40% (n= 20) of women reported the reason of abortion was that they cannot afford further child followed by failure of contraception in 28% (n= 14). In 40% (n= 20) of cases abortion was conducted by Dais and instrumentation 68% (n= 34) was the most commonly used method. Most common post abortal complication encountered during this study was hemorrhage in 66% (n= 33), sepsis in 54% (n=27), visceral injuries 24% (n= 12). For the management D & E was the most commonly 68% (n= 34) performed procedure, followed by peritoneal lavage (16%, n=8), uterine repair (10%, n=5).

CONCLUSION: Incidence and associated complication of illegally induced abortion can be reduced through effection family planning services by improving women’s educational and social status, mass health education and legal sanction against back door abortions and early recognition of complication and referral to hospital can reduce the mortality significantly.

KEY WORDS: Septic induced abortion, Risk factors, Immediate complications.

INTRODUCTION

According to WHO (1977) abortion is defined as (expulsion or extraction of a feus (embryo) weighing less than 500 grams equivalent to approximately 20—22 weeks gestation or as termination before 24 weeks of gestation with no evidence of life (UK legal definition)3. Abortion may be spontaneous or induced; spontaneous abortions are those in which termination is not provoked, where as induced abortion those are caused by deliberate interference5.

Induced abortion may be legal (which is on therapeutic basis) or illegal. It is legal when done on medical grounds which include life threatening conditions of pregnant women or chromosomally abnormal fetuses. It is illegal when both these problems do not exist and it is done on request of the patient6. Immediate complications of induced abortion are hemorrhage, sepsis, and visceral injuries and remote complications include, pelvic inflammatory disease, ectopic pregnancy and psychotic complications4. The global statistics of maternal mortality are more than a million deaths every year and 98% of this maternal mortality occurs in the developing countries. WHO estimates an average of 10—20 million women risking their lives annually by subjecting themselves to clandestine terminations of pregnancy. Abortions are legalized in developed countries with medical termination in 1st trimester being legal in India and menstrual regulation being used in Bangladesh. But Pakistan where contraception is scarcely practiced and abortion is illegal and back street abortion is common. These abortions are usually performed by untrained persons under septic conditions with any sharp stick, hair pin or knitting needle resulting in life threatening complications6,7.

It has been estimated that 37% of all pregnancies are unwanted in Pakistan where every year 890,000 induced abortions are performed (29 /1000 women aged 15—19 years) and 197,000 are treated in public and private teaching hospital for complications of induced abortion (6.4 /1000 women aged 15—49 years)8.

Septic abortion is an infection of the uterus or its appendages. Sometimes spreading haematogenously to the pelvis, peritoneal cavity and vital organs manifested by rise in temperature associated offensive or purulent vaginal discharge, lower abdominal pain, and clinical abdominal tenderness and sepsis. Any abortion may produce a septic sequel but the consequences of sepsis are much more sever in illegally induced abortions5.

Reasons for seeking abortion are varied socioeconomic concerns (including poverty, no support from partner and disruption of education or unemployment), family building preferences (including the need to postpone childbearing), relationship problems with the husband or partner, pregnancy resulting from rape or incest, poor access to contraception and contraceptive failure and still others may cites ages or health reasons that they feel too young or too old to have a baby or that pregnancy will affect their own or their baby’s health10,11.
METHODOLOGY

This was a descriptive study conducted at the Department of Gynaecology Unit 1, Civil Hospital, Karachi from 1st August 2006 to 15th March 2008.

The target population was all those persons who were admitted with history of induced abortion or abortion related complications. The sample size was 50 patients of induced abortion who fulfill the inclusion criteria.

All patients admitted in Gynaecology Unit 1, Civil Hospital, Karachi with history of amenorrhoea equal to or less than 20 weeks of gestational age (gestational age was calculated from last menstrual period or if the urine for pregnancy test report or the earliest ultrasound available), history of termination of pregnancy with consent, and with indication of evacuation of uterus for exploratory laparotomy to perform uterine repair, end to end repair of gut injuries, colostomy, pelvic abscess drainage and hysterectomies.

Data analysis was performed through SPSS version 10.0.

RESULTS

Among 50 women, 62% (n=31) were found in age group of 21—30 years while 38% (n=19), in age group 31—40. The mean age was 28.8 + 4.9 years. Out of 50 women, 94% (n=47) were married while 6% (n= 3) women were divorced. Majority 58% (n=28) of women were of lower middle class followed by an equal number (n=11) of poor and upper middle class.

In my study, induced abortion was common in grand multiparous 40% (n= 20) as shown in Table-I, and majority of women 48% (n=24) did not have history of abortion in past Table-II. Out of 50 women 54% (n= 27) had terminated their pregnancies at 6—10 weeks of gestational age Table-III.

Out of 50 women 40% (n= 20) reported that they are assisted by Dai (traditional birth attendant) for abortion followed by 30% (n= 15) by lady health visitors (LHV), 22% (n= 11) by doctor and 8% (n=4) women have self induced for abortion.

In 68% (n= 34) of patients instrumentation method was adopted for termination followed by intravaginal drugs in 18% (n= 9), 8% (n= 4) women used oral drugs, 8% (n= 4) used sticks/needles for termination followed by intravaginal drugs in 18% (n= 9), 8% (n= 4) women used oral drugs, 8% (n= 4) used sticks/needles and 2% (n= 1) used injection.

Hemorrhage was the most common complication encountered after abortion in 66% (n= 33) women, sepsis in 54% (n=27), uterine injury 18% (n=9), gut injury in 6% (n=3), renal failure in 4% (n=2) and DIC occurred in one women, 32% (n=16) women had more than one complication. (Table-5) 32% (n=16) women had more than one complication medical treatment as baseline treatment was performed and attempted in all cases. In surgical management D&E was the most frequent procedure that was performed in 68% (n= 34) cases followed by peritoneal lavage in 16% (n= 8), uterine repair in 10% (n= 5) hysterectomy in 6% (n= 3), gut repair in 6% (n= 3) and pelvic abscess drainage was performed in 2% (n= 1) case.

Out of 50 women 78% (n= 39) women had good recovery followed by 18% (n=9) women had shown delayed recovery due to wound infection, 2% (n= 1) women expired due to Sepsis, renal failure and DIC. 2% (n= 1) women was referred to nephrology department due to renal failure.

**TABLE - I: PARITY STATUS. (n = 50)**

<table>
<thead>
<tr>
<th>Parity status</th>
<th>(%)</th>
<th>n = ()</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nulliparous</td>
<td>(6%)</td>
<td>3</td>
</tr>
<tr>
<td>Para 1-2</td>
<td>(34%)</td>
<td>17</td>
</tr>
<tr>
<td>Para 3-4</td>
<td>(20%)</td>
<td>10</td>
</tr>
<tr>
<td>Para &gt;</td>
<td>(40%)</td>
<td>20</td>
</tr>
</tbody>
</table>

**TABLE - II: HISTORY OF ABORTION AND DISTRIBUTION OF GESTATIONAL AGE. (n = 50)**

<table>
<thead>
<tr>
<th>No abortion</th>
<th>%</th>
<th>n = ()</th>
<th>Gestational Age (Weeks)</th>
<th>(%)</th>
<th>n = ()</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>(48%)</td>
<td>24</td>
<td>6-10</td>
<td>(54%)</td>
<td>27</td>
</tr>
<tr>
<td>1</td>
<td>(34%)</td>
<td>17</td>
<td>11-15</td>
<td>(38%)</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>(10%)</td>
<td>5</td>
<td>16-20</td>
<td>(8%)</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>(4%)</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>(4%)</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In majority of women (40%) induction of abortion was done by planning as results shown in study. 

Abortion, it was probably the only available method of family limitation of family and contraception. These results are comparable with study, and it also shows increase incidence of induced abortion in women of child bearing of age. 

Induced abortion in poor class could be due to myths regarding complications of induced abortion. While study by Bhattacharya S. et al also supporting the increased rate of induced abortion in married women (94%) that is almost similar that was shown in study, and study conducted among married women over last 20 years. The rate of induced abortion was found to be high in married women (94%) that is almost similar that was shown in study, and study conducted among married women over last 20 years. The rate of induced abortion increases with the increasing frequency in poor socioeconomic group. Low frequency of attempts at abortion is directly related to increase in frequency. 

Regarding the parity results of my study are similar to study, which also shows increase incidence of induced abortion in grand multiparous, supporting the evidence that increase in parity. 

There has been trend of increased rate of induced abortion among women over last 20 years. The rate of induced abortion was found to be high in married women (94%) that is almost similar that was shown in study, and study conducted by Bhattacharya S. et al also supporting the increased incidence of induced abortion in married women. While study conducted by mitsunaga T. M. et al showed that incidence high in unmarried adolescents likely a result of cultural and religious norms that prevent open discussion of sexual issues among youth and adults who hold negative attitude towards premarital sex in countries like Nigeria. 

In my study frequency is high (56%) in lower middle class that is comparable to study (78%), (80%), (50%) which showed frequency in poor socioeconomic group. Low frequency of Induced abortion in poor class could be due to myths regarding limitation of family and contraception. 

Many women consider abortion as method of contraception. This is supported by the fact that in our study, the reason for abortion in majority of cases (40%) was that they did not afford more children and only (28%) were because of failure of contraception. These results are comparable with study, and it appears that for majority of women who underwent unsafe abortion, it was probably the only available method of family planning as results shown in study. 

In majority of women (40%) induction of abortion was done by DAS (traditional birth attendants) similar to those show in study (41.39%). In Pakistan all these unsafe abortions are performed by untrained, backstreet abortionists and victims are mostly poor, malnourished and anemic ladies belonging to under privileged classes of the society, and this fact also seen in study conducted by Awusi VO, Okeleke V in Nigeria. So the need of hour is to increase literacy rate and impart health education. There should be a law that all these untrained persons who are playing with the lives of innocent women should be banned. Government should arrange refresher course regarding complications of induced abortion for the traditional birth attendants, lady health visitors and nurses. 

Majority of serious complications and mortalities occurred in women who has termination carried out by unskilled personnel and instrumentation was the method employed for the purpose. 

Complication in majority of women in our study was hemorrhage (66%), followed by sepsis (54%) then visceral injuries (uterine 18%, gut injury 6%), the figures are high as compare to other studies. The incidence of abortion-related complications such as bowel injuries have been reported in most developing countries to be increasing at an alarming rate. The rate of bowel perforation as a complication of induced abortion has been reported in literature to range from 5% to 18% of all abortion-related complications. Among all complications, bowel injury in the most dangerous. It leads to significant number of deaths, which mostly occurred among women undergoing abortion where criminal methods were used. However, as in other iatrogenic surgical problems, many cases may have been unreported because of it medicolegal implications. Due to our social and religious factors there is criminal delay in referring such patients, which further complicates the situation. 

The key to reduce the mortality from complications of induced abortion is early recognition and prompt treatment. Majority of women were managed surgically and surgical procedures ranged from D&E to extensive procedures such as laparotomy including just peritoneal lavage to hysterectomy and bowel repair. 

In my study only 2% (n= 1) patients died due to sepsis, DIC and renal failure, while mortality was higher in survey done by Saeed G.A. this difference might be due to early admission, prompt intervention and better care at tertiary care hospital. As the consequences of unsafe abortion can be grave, health facilities should be well quipped, and health personnel well trained to manage complications safely and efficiently. Evidence demonstrates that liberalizing abortion laws to allow

### TABLE III: REASONS OF ABORTION AND COMPLICATIONS OF ABORTION. (n = 50)

<table>
<thead>
<tr>
<th>Reason of abortions</th>
<th>(%)</th>
<th>n = (50)</th>
<th>Complication</th>
<th>(%)</th>
<th>n= (50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>can’t afford further child</td>
<td>(40%)</td>
<td>20</td>
<td>Hemorrhage</td>
<td>(66%)</td>
<td>33</td>
</tr>
<tr>
<td>failure of contraception</td>
<td>(28%)</td>
<td>14</td>
<td>Sepsis</td>
<td>(54%)</td>
<td>27</td>
</tr>
<tr>
<td>Separated from husband</td>
<td>(16%)</td>
<td>8</td>
<td>Uterine injury</td>
<td>(18%)</td>
<td>9</td>
</tr>
<tr>
<td>Complete family</td>
<td>(10%)</td>
<td>5</td>
<td>Gut injury</td>
<td>(6%)</td>
<td>3</td>
</tr>
<tr>
<td>Unknown</td>
<td>(4%)</td>
<td>2</td>
<td>Renal failure</td>
<td>(4%)</td>
<td>2</td>
</tr>
<tr>
<td>Illegitimate pregnancy</td>
<td>(2%)</td>
<td>1</td>
<td>DIC</td>
<td>(2%)</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>50</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DISCUSSION**

Induced abortion is the major cause of morbidity and mortality in women of child bearing of age in countries, like Pakistan where abortion is illegal and unmet need for family planning is high, resorting to a clandestine abortion to terminate an unwanted/unplanned pregnancy is the most likely recourse that couples resort to as a method of choice to achieve their desired family size. And according to WHO’S estimates based on four studies carried out between 1961—1983, the incidence of induced abortion in women of reproductive age (13-45 years). 

In my study among 50 women, 62% (n= 31) were found in age group of 21-30 years while 38% (n=19) in age group 31-40 years. The mean age was 28.8 + 4.9 years which is negligibly different (29.2 + 5.7) from study of Dhillon BS et al conducted in India. So trend of induced abortion is more common in middle age group of reproductive age (13-45 years).
services to be provided openly by skilled practitioners can reduce the rate of abortion related morbidity and mortality. However sociopolitical and religious obstacles have and will continue to play a role in passing abortion laws. The emotional, physiological and financial cost on women and families as well as the burden on economic health system should no longer be ignored, because treatment for abortion-related complications consumes a large portion of hospital budgets for obstetrics & Gynaecology and result in considerable mortality & morbidity.

**CONCLUSION**

Septic induced abortions are most common in our society due to multiple social, economical or personal reasons. It is the major cause of maternal morbidity and mortality. It can be controlled by improvement in social and educational status of women, training of health workers and traditional birth attendants and timely referral to tertiary care hospitals in case of any complications.

**REFERENCES**


