ORIGINAL ARTICLE

METHODS AND COMPLICATIONS OF SEPTIC INDUCED ABORTION IN PATIENTS MANAGED AT A TERTIARY CARE HOSPITAL

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Background: To study the methods used for the termination of pregnancy and associated complications of induced abortion. **Methods:** This descriptive study was conducted in the department of obstetrics and gynaecology, Fauji Foundation Hospital Rawalpindi. One Hundred patients were included in the study who was admitted with the history of induced abortion. The patients were assessed by detailed history and thorough clinical examination according to the study protocol**.** Data was collected on a specially designed Performa. Patients were interviewed in privacy and factors contributing to termination of pregnancy like age, parity, socioeconomic status and contraceptive failure were determined. Methods used for the procedure, status of abortionist were asked. Complications were determined by history, clinical examination and ultrasound examination. In view of all above data recommendations of preventing unwanted pregnancies were made. **Results:** All patients were married and 57% of women belonged to age group of 31–40 years. Fifty-four 54% were grand multipara. In 63% of patients, induced abortion was carried out by *Dai*'s. Most commonly used method was instrumentation (72%). Financial problems (46.7%) and high parity (40%) were the most common factors contributing to termination of pregnancy. Serious complications like uterine perforation with or without bowel injury were accounted in 13% of women, septicaemia in 61%, peritonitis in 15% and DIC in 2%. During the study period illegally induced abortion accounted for 2% maternal deaths. **Conclusion:** Prevalence of poverty, illiteracy, grand multiparity and non-compliance of contraception were strong determinants of induced abortion, instrumentation being the most commonly used procedure resulting in high morbidity and mortality.

Keywords: Abortion, complications, Induced abortion, Morbidity, mortality, Uterine perforation, Septicaemia, DIC

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INTRODUCTION

Miscarriage is expulsion or removal of the products of conception before the age of viability of foetus of 500 gm or less. An infection of the uterus and its appendages (endometritis, parametritis) following any miscarriage especially, induced is known as septic which is characterized by a rise of temperature to at least 100.4 °F, associated offensive or purulent vaginal discharge and lower abdominal pain and tenderness.[1,2] It remains one of the most serious threats to the health of women throughout the world due to it high morbidity and mortality in women of childbearing age.[3] World Health Organization definition of unsafe abortion is a procedure for terminating an unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards or both. Abortion is not a modern aberration and had been practiced in almost all societies since the dawn of civilization[4] with scant regard to religion, legal sanction, safety or consequence.[5] Many primitive societies used herbs, poisons, sharp sticks and abdominal pressure as abortion methods.[6] Morbidity and mortality from the septic abortion are infrequent in countries where induced abortion is legal but are widespread in many developing countries where it is either illegal or inaccessible.[7–9] An estimated 75 million pregnancies throughout the world are unwanted.[10] Each year approximately 50 million unwanted pregnancies are terminated by women themselves and some 20 million of these abortions, 55,000 each day, are unsafe.[4] According to a recent survey among health professionals in Asia approximately one third of women who undergo abortion develop medical complications requiring hospital admission.[6] At least 78,000 women die each year from complications and hundreds of thousands of women suffer from long- or short-term disabilities.[11] In low-income countries, about 200 women die each day as a result of unsafe abortions.[12] Between 10% and 50% of all women who undergo unsafe abortions need medical care for complications.[13] Only few women admit to having had an induced abortion and many still deny interventions. They come to the hospitals only when complications have developed.

The religious views about abortion are divergent and wide apart. The concepts are changing in Christianity where early abortion was tolerated by the Church initially.[14,15] This view changed drastically in the early thirteenth century when the 'quickening', i.e., the time when foetal movements are first felt, was considered to be time at which abortion became homicide. In 1803 the British law made abortion of a

'quick' foetus a capital offence.[16] The trend to a more liberal attitude extended to the developed as well as developing countries during the 1960s and 1970s.[17] In 1991, British law was replaced with Islamic law in Pakistan which establishes two stages of pregnancy for punishment purposes. It imposes penalty for an abortion performed during the earlier stage unless it is carried out to provide 'necessary treatment'.[18] Majority of Muslim scholars agree that abortion at or after the ensoulment stage are prohibited, except to save the woman's life. One group permits abortion up to 120 days after conception. Another prohibits it as early as 80 or even forty days after conception.[19] A minority of scholars have a view, which prohibits abortion the minute the semen attaches to the uterus. Reasons for not wanting a pregnancy include non-availability of family planning facilities,[20] failed contraception,[21] unmarried, adolescent or abundant women,[22,23] victims of sexual abuse or rape[24] and opposition from husbands, having too many children to support. As long as there are unplanned and unwanted pregnancies, abortion will be a fact of life. Between 10 and 50 percent of all women who undergo unsafe abortions, need medical care for complications. More frequent short-term complications are incomplete abortion, sepsis, haemorrhage, bladder or bowel injury, uterine perforation, failed abortion, cervical shock, cervical laceration, haematomata, disseminated intravascular coagulation (DIC) and septic shock. Complications develop due to incomplete evacuation of the uterus and uterine atony leading to haemorrhage Instrumental injury, and infection with mixed pathogens derived from normal vaginal flora causing septic abortion.[25] Unsafe abortion is preventable and treatable cause of maternal mortality and morbidity.

The objective of this study was to identify various methods used to induce abortion and associated morbidity and mortality in patients reporting to hospital after induction.

MATERIAL AND METHODS

One hundred consecutive cases of septic induced abortion reporting to gynaecology department through outpatient or emergency were included in this descriptive study carried out at Fauji Foundation Hospital (FFH) Rawalpindi. Abortions induced by medical personals for therapeutic purposes were excluded. Patients were interviewed in privacy. Factors contributing to termination of pregnancy like age, parity, socioeconomic status and contraceptive failure were determined. Methods used for the procedure, status of abortionist were recorded. Complications were determined by history, clinical examination and ultrasound examination. The data was entered into hospital information system (Medix™) and processed in SPSS-16. The parametric test was utilised for Gaussian distribution where as non parametric test was used for non Gaussian data. The statistical test was from the same group of descriptive as well as inferential statistics.

RESULTS

Out of a total of 100 cases 29 belonged to age group of 36–40 and 28 cases to 31–35 age group which together make 57 case in forth decade. Only 16 patients were below 30 years of age and four were above 45 years of age (Figure-1). Youngest patient was of 25 years and the oldest one was of 47 years of age. Twenty-seven patients were in the parity group of 5 and 6 making a total of 54 cases, whereas twenty two cases were parity more than 6. Highest parity was 10 in two cases. Figure-2 details of abortionists and various methods used by them are depicted in Figure-3 and Table-1. The method most commonly employed was instrumentation, used in 72 women. Foreign bodies like sticks, hairpins, lamanaria and IUCD were used in 25 women. Oxytocin injections were given to 12 women and tablets in 12 women. In 63 patients abortions were induced by *Dai* (Traditional midwife). The number of cases in Table-1 is more than the total patients because in certain cases various combinations of methods were used as shown in Table-2. Our patients suffered numerous complications as shown in Table-3 Sixty-seven women presenting with vaginal bleeding were having retained products of conception required uterine evacuation to complete the procedure. Thirty-four women had excessive bleeding requiring blood transfusion. Thirteen women admitted with uterine perforation, out of which 2 had gut injury as well. Sixty-one women had significant sepsis leading to peritonitis (15), septicaemia (42), chorioamnionitis (2) and septic shock (3). Disseminated intravascular coagulation (DIC) developed in two patients. Failure occurred in four women, two with intact pregnancy and another 2 had ectopic pregnancy. There were two fatalities, one had tetanus and the other died of septicaemia, gut perforations, renal shutdown and disseminated intravascular coagulation.

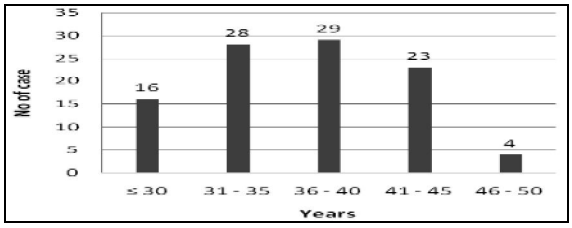

Figure-1: Age distribution of cases (n=100)

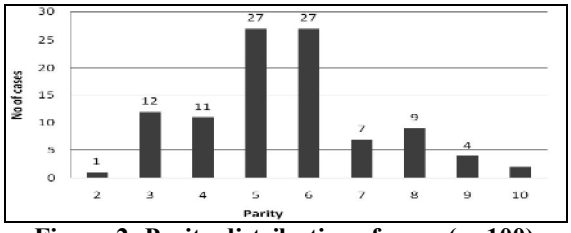

Figure-2: Parity distribution of cases (n=100)

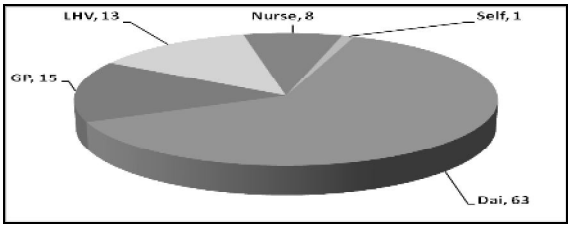

Figure-3: Frequency of abortionists (n=100)

Table-1: Method used and abortionist

Methods/Perfirned by	Dai	LHV	Nurse	Doctor	Self	Total
Instrumentation	40	12	7	13	-	**72**
Foreign body	20	1	3	1	-	**25**
Injection	7	3	1	1	-	**12**
Tablets	8	-	-	3	1	**12**
Total	**75**	**16**	**11**	**18**	**1**	**121**

Table-2: Combination of Induction types

Induction Type	Cases
Instrumentation+Foreign body	9
Instrumentation+Injection	8
Instrumentation+Tablets	3
Instrumentation+Injection+Foreign body	1
Tablets+Injection	1
Total	**22**

Table-3: Maternal morbidity and mortality of induced abortion

Morbidity	No. of cases
Incomplete evacuation	67
Perforation of uterus	11
Perforation of Uterus+Gut	2
Sepsis	
Septicaemia	41
Peritonitis	15
Septic shock	3
Chorioamnionitis	2
DIC	2
Bleeding requiring transfusion	34
Failure	
Intact pregnancy	2
Ectopic pregnancy	2
Mortality	2
Total	**183**

DISCUSSION

The unsafe abortions[26] are performed by untrained, back street abortionists, and victims are mostly poor ladies belonging to the underprivileged classes of the society. The major reasons for choosing these places are to keep the abortion secret. These women are brought to public health care facilities when significant complications develop. It is for this reason that hospital based data is only the tip of iceberg. In many parts of the world, induced abortion is considered to be a problem of single women who are most likely to be adolescent.[27,28] In contrast, most of the women in our study were older multipara who used abortion as a tool for birth spacing. Our results are consistent with other local studies.[29–31] All women in our study were married. The best strategy to reduce the number of unsafe abortions is the prevention of unwanted pregnancy. To prevent induced abortion, contraceptive services need to be made more widely available and accessible and acceptable. Through effective family planning counselling and services, a significant reduction in the occurrence of induced abortion in the said age and parity groups could be achieved.

In 63% of patients induced abortion were carried out by untrained birth attendants and instrumentation was the commonest method used (72%). According to a study from Karachi untrained birth attendants carried out the procedure in 82.5% of cases and instrumentation was the commonest method used (50%).[32] Total 61% of cases presented with vaginal bleeding and retained products of conception needed evacuation, 34% with excessive bleeding and required blood transfusion, 13% with visceral injuries, 61% with sepsis, 3% with DIC, and 2% mortality from DIC, septicaemia and renal failure. According to study from Kenya 80% women presented with incomplete abortion.[33]

Septicaemia, bowel injury and haemorrhagic shock were significant complications, while the mortality rate was 10%, in a study from Karachi.[32] Serious complications like uterine perforation with or without bowel injury were encountered in 43.8% of women and illegally induced abortion accounted for 10.5% maternal deaths in a local study.[8]

In a study from India 80% had septicaemia, 20% had visceral injury and coagulopathy was seen in 4.5% of cases[13] which is consistent with our study. For many women the use of abortion services can lead to social ostracism or rejection by family members. Women often delay seeking care, even to point of death, as a result of such fear. Legal, socio-cultural, financial and religious constraints contribute towards the under reporting of abortion complications.[34]

Prevention of unwanted pregnancies must always be given the highest priority and every attempt be made to eliminate the need for abortion. Women who have unwanted pregnancies should have ready access to reliable information and compassionate counselling.

In all cases women should have access to quality services for the management of complications arising from abortion. Post-abortion counselling information and family planning services should be offered promptly which will help avoid repeated abortions.

CONCLUSION

Induced unsafe abortion is quite common in our society due to multiple social, economic or personal reasons and due to non-availability of safe abortion services; it is performed by untrained health professionals resulting in high morbidity and mortality. Mass education, training of health professionals, ensuring availability and

utilisation of safe contraceptive methods and provision of timely medical management can eliminate the complications associated with induced abortion. We recommend that:

- High degree of commitment of all health personnel for prevention of unsafe abortions is needed
- Our people especially the elders of the family and male part of our society need to be educated as causes of unsafe abortion are rooted in a complex set of socio-demographic circumstances
- Contraceptive services should be made available to all
- Different counselling strategies should be adapted according to circumstances
- Once complications of abortion occur they should be dealt with promptly and aggressively to minimise morbidity or mortality associated with the condition

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