Comparison of Outcome of Illegal Versus Therapeutically Induced Abortion

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ABSTRACT

Background: The abortionist is an untrained person performing procedure under septic condition with a sharp stick, hairpin, or knitting needle resulting in the development of life threatening infection, hemorrhage and damage to abdominal and pelvic viscera's, renal shutdowns and DIC.

Objectives: To compare outcome (in term of hemorrhage, sepsis, injuries, and miscellaneous) of illegal versus therapeutically induced abortions.

Material and Methods: This comparative study was carried out in Gynae Unit of Saidu Group of Teaching hospital, Swat, from January 15th 2015 to December 31st 2017.This study included 68 consecutive cases of Induced abortion, 40 illegal and 28 were therapeutically induced abortions. All patients with history of illegal induced abortion admitted presented to OPD or casualty and therapeutically induced abortion performed in ward were included. Relevant information was recorded on a predesigned questionnaire prepared in accordance to the objectives of the study.

Results: Rate of morbidity such as hemorrhage (45%) and sepsis (35%) were significantly higher in illegal than therapeutically induced abortions, other Complication present only in illegal abortion were uterine perforation (7.5%) uterine and Gut perforation (2.5%) and 16% miscellaneous complication such a renal failure, DIC and Jaundice.15% of patients with illegal abortion had prolonged hospital stay, 90% had their complications treated surgically and 10% maternal mortality was observed only in the illegally induced abortion.

Conclusion: Significant rate of complications were seen in illegal induced abortions.

Key Words: Induced abortion, illegal, therapeutic, maternal morbidity, maternal mortality.

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INTRODUCTION

WHO estimates that among 210 million pregnancies that occur each year globally there are 42 million (82%)induced abortions of which 20 million are unsafe abortions[1]. In other word about 5,000 unsafe abortions are carried out each day. Of these 95% take place is developing countries. Nearly half of these are in Asia, about one third being in South Asia.[2] Changes in view of women on the family size, economic pressures, late marriage, access to population and family planning services can also influence the induced abortion rate[3,4]. Each year 670,000-680,000 women, mostly in the developing countries die from untreated or inadequately treated abortion complication[5,6]. This make unsafe abortion (UA), one of the leading causes of maternal mortality (13%)[7], about one in 8 pregnancy related death[8].

In Latin America about 25% deaths are due to unsafe abortion and in Bangladesh about 20%.[9] About 9-15% of maternal deaths in Pakistan are attributed to illegally induced abortion.[10,11,12]

The abortionist is an untrained person performing procedure under septic condition with a sharp stick, hairpin, or knitting needle resulting in the development of life threatening infection, hemorrhage and damage to abdominal and pelvic viscera's, [13] renal shutdowns and DIC. [14,15] Zaidi et al have reported a mortality of 12.62% in their patients of induced abortions due to visceral trauma Most of these illegally performed abortion are septic because they are done in the presence of poor sanitation by untrained person.[16,17] According to Saeed GA study sepsis account for 32.69% of maternal complications.[13]

The intention behind the selection of this topic was that induced abortion is one of most neglected health problem, and serious concern to women during their reproductive lives. Several studies have shown that maternal mortality and morbidity tends to rise with illegal induced abortion

MATERIAL AND METHODS

This was a comparative study performed in Gynae Unit SGHT, Saidu Sharif, Swat, from January 15th 2015 to December 31st 2017. The study included 68 consecutive patients with illegal and therapeutically induced abortion, among them 40 patients had illegal induced abortions and 28 had therapeutically induced abortion. All patient with history of illegal induced abortion presented to OPD, Casualty and therapeutically induced abortion performed in the ward were included in this study. All other abortions like missed abortion and incomplete abortion were excluded. All the information for variables is given in proforma attached at annexure.

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Information from all the variables is collected according to proforma developed for study. From all patients whether therapeutic or illegally induced detailed history was taken. Patients were thoroughly examined including general physical examination. (General look whether toxic, pale, jaundiced etc. and vital signs) and systemic examination. Abdominal examination includes palpating for any area of tenderness, guarding or rigidity. Shifting dullness and auscultation of bowel sound was done to rule out ascites and paralytic ileus. Pelvic examination was performed to see the condition of cervix (speculum examination), uterus (size and tenderness) and to detect any adnexal masses or tenderness.

All relevant investigation was done including Routine investigations such as: Blood group, Hb%, Urine R/E, RBS, HBS, HCV, Specific investigations such as High vaginal swab cervical swab, Abdominal and pelvic USG, leucocytes count renal parameter, liver function test Serum electrolyte, Coagulation profile Blood and urine culture, X-ray erect abdomen X-ray chest ECG
These were advised where necessary.

Management option were based on the patient condition and were either medical or surgical, medical management included use of broad-spectrum antibiotics, tetanus prophylaxis, parental fluids, correction of anemia or coagulation disorders.
Surgical treatment included evacuation of uterus under antibiotic cover, colpotomy, exploratory laparotomy, colostomy, pelvic abscess drainage and hysterectomies.
Statistically we calculated odd ratios, 95% confidence intervals (CIs) and chi square using epi-info version 6 software.

RESULTS

It took about two years to collect 68 consecutive cases of induced abortion, among them 40 were illegal and 28 were therapeutically induced abortion. They were compared according to objectives. Total abortion related admission during same period were 1800. Following results were obtained which were based on information retrieved from preformed.

The frequency of illegal induced abortion was 3.7% (n=68), while it was 2.2% (n=40) and 1.5% (n=28) in illegal and therapeutically induced abortion respectively related to total cases of abortion admitted (Table 1).

The rates of complications were significantly higher ($P<0.05$) in illegal than therapeutically induced abortion. The complications rate was 100% in illegal and 17.8% in therapeutically induced abortion Hemorrhage was present in 45% of illegal and 7.1% of therapeutically induced abortion. The difference was highly significant ($P<0.001$) in illegal than therapeutically induced abortion. The rate of sepsis was significantly higher ($P<0.05$) in illegal than therapeutically induced abortion. Other complications were only present in illegally induced abortions like uterine perforations 7.5%, uterine and gut perforation 2.5% and in 10% of cases such as renal failure, DIC and jaundice.

Maternal mortality in illegal induced abortion was 10%, causes observed in these patients were septicemic shock 2.5%, septicemia, renal failure and DIC 7.5%, while there was no maternal mortality in therapeutically induced abortion. (Table II)

Majority of patients with illegal induced abortion (90%) were managed surgically for complications, E&C 65%, hysterectomy 10%, laparotomy followed by peritoneal lavage 5%, colpotomy 2.5%, laparotomy followed by removal of IUCD from abdomen 2.5%, drainage of pelvic abscess 2.5%, hysterectomy and colostomy 2.5%. Only 10% of patients with illegal induced abortions were treated medically / conservatively. In case of therapeutically induced abortion all patients 17.8% were treated medically / conservatively.

Prolonged stay (more than 7 days) at hospital was only found in 15% of patients with illegal induced abortion, while in therapeutically induced abortion no prolonged stay was observed (Table III).

Table 1: Frequency of Complications of Illegal and the Rapeutic Abortion

Illegal cases = 40 Therapeutic case =28

Complications	Illegal Abortions		Therapeutic Abortions		P-value
	No of Pts	%age	No of Pts	%age	
Hemorrhage	18	45	2	7.1	
Hemorrhage without shock	9	22.5	2	7.1	P <.001
Hemorrhage with shock	9	22.5			
Sepsis	14	35	3	10.7	
Urine infection	5	12.5	3	10.7	P <0.05
Peritonitis	5	12.5			
Septicemia	3	7.5			
Septicemic Shock	1	2.5			
Uterine perforation	3	7.5			
Uterine and gut perforation	01	2.5			
Miscellaneous (renal failure, DIC, jaundice)	04	10			

For hemorrhage P Value <0.001 (highly significant)

For sepsis P Value <0.05 significant.

Table 2: Causes Of Maternal Death In Illegal Abortions

Total No of Illegal Cases = 40
Maternal Deaths = 4 (10%)

CAUSE	MATERNAL DEATH
Septicemic Shock	1(2.5)
Septicemia + DIC + Renal Failure	3 (7.5)

Table 3: Duration Of Stay At Hospital

Total Illegal Cases = 40
Total Therapeutic Cases = 28

Duration of Stay	Illegal Abortions		Therapeutic Abortions	
	No of Pts	%age	No of Pts	%age
1 – 4 Days	29	72.5	21	75
5 – 7 Days	5	12.5	7	25
8 – 14 Days	4	10	--	--
15 – 35 Days	2	5	--	--

DISCUSSION

Though women can die and suffer morbidity from complications arising in both spontaneous and induced abortions, the ratio in unsafe abortion is much higher. It is estimated that 10-50% of women who undergo unsafe abortions need treatment for complications, these being incomplete evacuations, hemorrhage, sepsis uterine and cervical injuries and injuries to intra-abdominal viscera like colon and small intestine.[18]

Abortion in Pakistan is illegal unless it is performed to save the life of pregnant women. Nevertheless, a large number of clandestine (illegal) abortions continue to be carried out regularly with dire consequences for the lives and health of women involved.[11]
High proportion of induced abortion is unregistered and performed illegally. The rates of complications were significantly higher in illegal than therapeutically induced abortion. The complication rate was 100 % in illegal and 17.8% in therapeutically induced abortions. Hemorrhage was present in 45% of illegal and 7.1% of therapeutically induced abortions is highly significant. The frequency of hemorrhagic shock was high in illegal (22.5%) than therapeutically induced abortions (7.1%). There was significant difference of sepsis in illegal (35%) and therapeutically induced abortion (17.8%). In sepsis rate of uterine infections was higher in illegal (12.5%) than therapeutically induced abortions (10.7%).

The rates of other complications of illegal abortion in our study were uterine perforation 7.5%, uterine and gut perforation 2.5%, other (renal failure, jaundice and DIC) 10% Saeed GA (2002) have reported hemorrhage in 44.3%, sepsis 32.6%, visceral injuries 19.2% and miscellaneous (renal failure and jaundice) 3.8%.[13] Najmi RS (1998) have found hemorrhage in 43% cases, sepsis in 33.3%, visceral injuries in 18% and Miscellaneous (Renal failure and jaundice) in 5.55% cases.[10] Tayyab S and Samad NJ (1996) have documented different complication rate as hemorrhage 26%, sepsis 29%, trauma 40.54% and miscellaneous 5.4%.[11]
Our study is comparable with study of Saeed GA and Najmi RS in which hemorrhage and sepsis were most common complications, while visceral injuries and miscellaneous were less complications.

The complications rate in therapeutic abortion was 17.8%, 10.7 % had sepsis and 7.1% hemorrhage.

The reasons for these complications are that most of our therapeutic abortions were done in second trimester and most of these abortions were induced by extra amniotic injection PG F_2. The cold chain of this injection is not-maintained in medical stores so they are not working properly, patients may require two to three injections and so intracervical catheter may remain for 3-4 days, which is source of infection. Our three patients had febrile morbidity during procedure and were treated conservatively.
Two patients in therapeutic abortion induced medically had hemorrhage due to atonic uterus and these patients were also treated conservatively.

Najmi RS (1996) have reported sepsis in 9% of therapeutic abortion due to instillation of extra-amniotic PG F_2[7+], while Zafar MA et al (2001) have reported sepsis in 12% of patients with therapeutic abortion.[19]

Most patients (90%) with illegal abortion were managed surgically, while only 10% were managed medically. Surgical management included E & C, hysterectomy, colostomy and laparotomies for pelvic abscess, removal of IUCD and peritoneal wash. Zafar MA et al 2001 have reported that 80% patient's had. surgical management and 20% had medical management of complications [19]. Our study is comparable with study of Zafar MA where most of patients had surgical management of complications.
Prolonged stay at hospital (15%) was observed because of complications such as hemorrhage sepsis etc in illegal induced abortion. Zafar et al 2001 also observed 95% complications rate and prolonged hospital stay [19]

In our study the mortality rate was 10%. All these patients were admitted with either septicemia, DIC, renal failure or septicemic shock and died within 24 hours. These patients were initially managed by untrained persons. Our study is quite comparable to study, conducted by Butta ZS et al (2003) and Saeed GA (2002) both have reported mortality rate of 10%[20]. Najmi RS (1998) have reported mortality rate of 10.50%,[10] while Zaidi et al (1993) have found mortality rate of 12.6%.[12] Tayyab S Samad NJ (1996) have reported 25% mortality rate.[11]According to WHO 13% of maternal death are due to unsafe abortion.[18]There was no maternal mortality in therapeutic abortion. Limitations of present study were.

Most patients deny any intervention because of social and religious reasons.

Although Lady Reading Hospital is a tertiary referral center getting all the complicated patients from the province, other teaching hospitals and district level hospital were not included in my study.

CONCLUSION

Risks of complication are higher in illegally than therapeutically induced abortion.

Surgical management of complication and prolonged hospital stay is mainly observed in illegal induced abortion.

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