

## Frequency demographics and maternal morbidity associated with complicated cases of unsafe abortion presenting at a tertiary care hospital, Larkana, Pakistan

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**Objective:** To determine the frequency, demographics, type of abortionist, method used, and morbidity associated with complicated cases of unsafe abortion admitted to a tertiary care hospital.

**Methodology:** This descriptive study was conducted over a period of two years from 1st January 2010 to 31st December 2012 at the department of Gynecology, SMBBMU Larkana, Pakistan. All patients who had the history of induced abortion of  $\leq 22$  weeks of gestation, terminated outside our hospital were admitted. The information recorded included demographics, reason for opting abortion, place of abortion and expertise of the person who carried out the procedure and its subsequent morbidity. After evaluation, and primary resuscitation, they were managed according to their morbid condition. Data were analyzed using SPSS version 20.

**Results :** During the study period, total number of admissions were 4952, and among them 452 were cases of abortion. Out of these, 60 had induced abortion making the frequency of 0.605%

(6 per 1000 per year) of all the gynecological admissions and 6.63% (66 per 1000 per year) of all the cases of abortion. Mean age of patients was  $33.5 \pm 4.1$  year. 48 (80%) patients belonged to poor socioeconomic class and 58 (96.7%) were illiterate. Abortion was induced by Dai (33.3%), Doctor (33.3%), Lady health visitor (LVH) (26.7%) and Traditional birth attendant (6.7%). Methods used were Dilatation and evacuation (55%) and oral misoprostol (45%). Bleeding per vaginum was the most common complication affecting 35 (58.3%) patients followed by sepsis and uterine perforation.

**Conclusion:** Induced abortion is a menace resulting in significant maternal morbidity, affecting 6 per 1000 of all gynecological admissions per year. These abortions were mainly induced by Dais and LHV's. Bleeding per vaginum was the most common presenting feature of induced abortion. (Rawal Med J 2014;39: 303-306).

**Key words:** Unsafe abortion, induced abortion, maternal morbidity, complications.

## INTRODUCTION

Unsafe abortion is a serious global health concern. Each year there are an estimated 40-50 million abortions worldwide and about 20 million of which are considered unsafe and 95% of all unsafe abortions take place in developing countries.<sup>1</sup> In Pakistan, annually 6.4 women are hospitalized as a result of unsafe abortions, per thousand women of reproductive age.<sup>2</sup> A recent study reveals that around 40% of abortions are performed by unskilled workers in backstreet clinics.<sup>3</sup> Majority of unsafe abortion providers are LVH, nurse/midwives and traditional birth attendants (TBA), and despite restrictive laws these abortionists, trained or

untrained, exist in the society, whereas trained medical professionals constitute only a small proportion of the providers.<sup>4</sup> Therefore, termination of pregnancy carried out by untrained practitioners often end up with complications like sepsis, hemorrhage, uterine perforation, visceral injuries, or long term sequelae like infertility with its psychological effects, and contribute to a significant increase in maternal morbidity and mortality.<sup>4,5</sup>

A study in 2013 reported that 47.5 out of 10 women were estimated to develop complications when an abortion was carried out by LHV's/Nurses/Midwives, and one out of 10 women if the service provider was a gynecologist.<sup>6</sup> Unsafe abortion

related morbidity and mortality in Pakistan based on medical studies of general induced abortion varies between 2.7% to 27% and 2.43% to 27.27%.<sup>7</sup> The aim of this study was to determine the frequency, demographics, type of abortionist, method used and morbidity associated with induced abortion in our tertiary care hospital.

## METHODOLOGY

This study was conducted over a period of two years from 1<sup>st</sup> January 2010 to 31<sup>st</sup> December 2011 at the Shaikh Zaid Women Hospital (SZWH) of Chandka Medical college Hospital, SMBBMU, Larkana, Pakistan, after Ethical approval was taken from its Ethical Review Committee. All pregnant ladies who had abortion at or below 22 weeks of gestation induced outside SZWH by either dai, or TBA, or LHV, or a lady doctor and presented to the emergency of SZWH with one of the complications like bleeding per vaginum, severe pain in abdomen or sepsis were included in this study. The bleeding was categorized as mild, moderate and severe. Women who had abortions or dilatation and curettage (D&C) performed for therapeutic purpose, women with bleeding PV due to placental abruption, bleeding diathesis or trauma were excluded.

After taking informed consent, data collected included age, marital status, parity, reason of opting for abortion, place and expertise of the person who carried out the procedure and its subsequent morbidity. Detailed examination of these patients and the results of relevant investigations were also recorded. After primary resuscitation, these patients were managed according to their morbid condition. All data were analyzed through SPSS version 20. Pearson's Chi-square test was used to find out the significant relationship between economic status and abortionist. P-value of less than 0.05 was considered as statistically significant.

## RESULTS

During the study period, there were 4952 gynecological admissions and 452 women had abortions. Out of these, 60 had induced abortion (0.605%; 6 per 1000 per year) of all the gynecological admissions and 6.63% (66 per 1000

per year) of all the cases of abortion per year.

**Table 1. Baseline clinical characteristics (n = 60).**

	Minimum	Maximum	Mean $\pm$ S.D
Age (yr)	25	40	33.5 $\pm$ 4.1
Last Delivery (yr)	0.25	3	1.6 $\pm$ 0.8
Gravida (th)	4 <sup>th</sup>	19 <sup>th</sup>	8.25 $\pm$ 3.22

**Table 2. Socioeconomic status, mode of abortion and morbidity (n = 60).**

Variables	Categories	Number (%)
Educational Status	Literate	2 (3.3%)
	Illiterate	58 (96.7%)
Socio economic status	Poor	48 (80%)
	Middle Class	12 (20%)
Previous mode of delivery	SVD	58 (96.7%)
	C- Section	2 (3.3%)
Duration of pregnancy	4 – 8 weeks	14 (23.3%)
	9 – 13 weeks	40 (66.7%)
	14 – 20 weeks	6 (10%)
Abortion Induced by	Dai	20 (33.3%)
	TBA	4 (6.7%)
	Doctor	20 (33.3%)
	LHV	16 (26.7%)
Method used to induce abortion	D/E	33 (55%)
	Oral Misoprostol	27 (45%)
Maternal morbidity	Septicemia	9 (15%)
	Visceral Injuries	1 (1.7%)
	Bleeding per vaginum	35 (58.3%)
	DIC	1 (1.7%)
	Perforation of uterus	9 (15%)
	Blood Transfusion	5 (8.3%)

**Table 3. Relation between socio economic status and abortionist.**

Abortionist		Socio Economic Status		P-value
		Poor (n = 48)	Middle Class (n = 12)	
	<b>Dai</b>	16 (33.3%)	4 (33.3%)	*0.042
	<b>TBA</b>	3 (6.3%)	1 (8.3%)	0.795
	<b>Doctor</b>	14 (29.2%)	6 (50%)	*0.012
	<b>LHV</b>	15 (31.3%)	1 (8.3%)	*0.007

The mean age of these patients was 33.5 $\pm$ 4.1 (Table 1). Majority were illiterate 58 (96.7%), and poor 48 (80%). Spontaneous vaginal delivery was the previous mode of delivery in almost all i.e. 58 (96.7%). 9 to 13 weeks was the duration of gestation in 40 (66.7%) patients. Abortion was induced by either Dai 20 (33.3%) or Lady Doctor 20 (33.3%). Dilatation and evacuation was method used to induce abortion in 33 (55%) and oral misoprostol in

27 (45%). Bleeding per vaginum was the most common presenting complication in 35 (58.3%), however majority of patients had mild and mild to moderate bleeding except 5 patients who bled heavily and required blood transfusion (Table 2). LHV was preferred by the poor patients to induce the abortion (Table 3). No significant difference ( $p=0.0738$ ) was found on comparing the abortion inducing person and the method used to induce abortion. Although hemorrhage was the most frequent complication, no significance difference was found between the type of complication and the inducing person.

## DISCUSSION

In Pakistan, annually, an estimated 890,000 induced abortions are performed and 197,000 women are treated for complications induced abortion. Around 6.4 women are hospitalized as a result of unsafe induced abortions per 1,000 women aged 15-49.<sup>2</sup> In the present study, a frequency of 0.605% (6 per 1000 per year) was recorded. These results are similar to another study from Pakistan.<sup>2</sup>

The mean age of patients in this study was  $33.5 \pm 4.1$  year, which is comparable to other studies; by Sathar et al as 15-49 years and Hussain et al 26-40 years.<sup>8</sup> In a study by Das et al patients were in the age group 20-40 years.<sup>9</sup> In another study by Siddiq et al the age was 17-47 years.<sup>10</sup> The majority of women in the present study were illiterate 58 (96.7%), and poor 48 (80%). This fact was also observed by Korejo et al from Karachi, who have shown that all women belonged to low socioeconomic class and 59.6% of them were illiterate.<sup>11</sup> In another study by Jilani et al 87/100 women belonged to low socioeconomic group.<sup>12</sup> In another study by Fawad et al the mean age of patients was 35 years and majority of them belonged to lower socioeconomic group.<sup>13</sup> In a study by Najmi 79% patients were illiterate.<sup>14</sup>

In present study, majority of patients were grand multiparae (Mean  $8.25 \pm 3.22$ ). This fact is also established from other studies.<sup>8,10,11,13,14</sup> In this study, the duration of gestation was 9-13 weeks in majority 40 (66.7%) of patients. This is comparable the study by Kanum et al, in which 72 (80.9%) had pregnancy termination in early weeks of gestation (within 12 weeks).<sup>15</sup> Similarly, the results of another study by

Ashraf et al are also comparable in which 57% were between 7-12 weeks.<sup>16</sup>

In this study 20 (33.3%) abortions were induced by Dai, another 20 (33.3%) by Doctor, 16 (26.7%) by LHV and 4 (6.7%) by TBA. In a study of 50 patients by Chohan et al, the majority of cases were handled by Dai or LHV.<sup>17</sup> Similarly, most abortions were induced by LHVs and Dais in a study by Khanum et al.<sup>15</sup> In study by Korejo 43% of abortions were induced by Dais.<sup>11</sup> In another study, 82.5% procedures were performed by untrained birth attendants and 15% by Doctors.<sup>8</sup> The number of abortions induced by Doctors is almost equal to that of Dais in the present study and this is similar to a study by Bhutta et al where 32% procedures were performed by untrained birth attendants and 30% by doctors.<sup>18</sup>

In our study, 55% patients had D&E. This is comparable to most of the other studies in which instrumentation was the most common method employed for induced abortion.<sup>8,12,14,18,19,20</sup>

Hemorrhage was the most common complication followed by sepsis and uterine perforation. In studies by Najmi et al and Saeed, hemorrhage was the most frequent complication,<sup>14,21,22</sup> whereas in other studies these three complications (hemorrhage, sepsis, and perforation) have been reported in varying proportions.<sup>9,13,18,20</sup>

## CONCLUSION

The induced abortion affected 6 per 1000 of all gynecological admissions per year at our institution. Most of these abortions were induced by untrained persons. Bleeding per vaginum was the most common presenting complication of induced abortion, beside sepsis and uterine perforation.

### Author Contributions:

Conception and design: ShabnamNaz  
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