FREQUENCY OF COMMON COMPLICATIONS AMONG PATIENTS PRESENTING WITH SEPTIC INDUCED ABORTION.

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ABSTRACT... Objectives: To find frequency of common complications among patients presenting with induced septic abortion attending OPD of Hayatabad Medical Complex Peshawar. Study Design: Descriptive cross-sectional study. Setting: Department of Obstetrics & Gynecology Hayatabad Medical complex Peshawar. Period: 6 October, 2016 to 6 April, 2017. Material & Methods: Through a cross sectional validation study design, 123 pregnant female patients with induced septic abortion having a gestation period of 20 to 22 weeks were included in the research study. After their consent, detailed clinical examination and history of patients were taken. SPSS version 10.0 was used for analysis of the collected data. Descriptive statistical data like mean ± Standard deviation was measured for age, gravidity & parity. Likewise, frequency & percentage was calculated for hemorrhage, diffuse peritonitis and severe anemia. Results: As per Common Complications, frequencies and percentages for hemorrhage was recorded in 31 (25.20%) patients, diffuse peritonitis was recorded in 49 (39.83%) patients while severe anemia was recorded in 26 (21.13%) patients. However, 17 patients (13.82%) had no complications other than septic abortion. Conclusion: Our study concluded that the mishap of septic-induced abortion is totally preventable. The definitive commitment to women’s health can be achieved through effective contraception and by strengthening the family welfare services. Positive results can be achieved by discouraging repeated terminations of pregnancy. Key words: Induced Abortion, Maternal Mortality, Morbidity, Unsafe Abortion.

INTRODUCTION
Abortion (miscarriage) can be defined as the extraction or expulsion of a fetus (embryo) weighing less than 500-g or equivalent to approximately 20-22 weeks gestation.¹

According to World Health Organization (WHO), unsafe abortion is defined as termination of pregnancy by unskilled persons or in an environment that does not support the minimal medical standards, or both.²

Septic abortion still remains a challenging problem in developing countries and reflects a major cause of maternal morbidity and mortality.³

Illegal induced abortion preceded by infection of uterus and adjacent organs is called septic abortion, which is characterized by excessive vaginal discharge, lower abdominal pain and rise in temperature of 38°C.⁴

History of recent pregnancy, abnormal vaginal discharge or bleeding with pain, fever and chills are the major symptoms of septic abortion.⁵

Reportedly in 2010, 10 women died from complications of legal induced abortion in the united states.⁶ However, no death associated with known illegal induced abortion was reported which may be due to reporting issues.

In the United States about 4% of pregnancy are attributed to induced abortion and spontaneous miscarriages.⁷

After legalization of abortion in the United States, mortality declined rapidly from septic abortion.
Now mortality rate in United States is less than 1 per 100,000 abortions. This rate remains the same for most of the European countries.

WHO estimates that amongst the five major causes of maternal death, Induced abortion accounts for one fourth of these deaths. The number of women becoming pregnant is about 210 million each year worldwide. Unplanned births and abortions account for more than 25% of these pregnancies. Annually 20 out of 42 million women with unintended pregnancy (the most common cause of abortion i.e. 82%) choose termination of pregnancy, which is unsafe globally.³

Low resource settings, such as use of sharp or inappropriate objects and lack of sterile equipment results into complications like hemorrhage and peritoneal rupture, fever, septic shock, abnormal vaginal discharge etc are associated with unsafe abortions.⁴

MATERIAL & METHODS
After seeking the consent and approval of the hospital research and ethical committee, the study was carried out. All patients who met the inclusion criteria were admitted through OPD/ER department for further evaluation. Written informed consent from the patients was obtained after discussing the purpose and benefits of the study. It was a Descriptive cross-sectional study conducted at Department of Gynaecology and Obstetrics, Hayatabad Medical Complex, Peshawar from 06 Oct 2016 to 06 April, 2017. A total of 123 pregnant patients were included using 95% confidence level with a 5% margin of error under WHO software for sample size determination.

Consecutive (Non probability) technique was used. Patients considered were of reproductive age ranging from 15 to 45 years having history of induced septic abortion. Patients with history of abnormal uterine bleeding, missed and incomplete abortion were excluded.

Detailed history, clinical examination and routine investigations were done. Patients were carefully evaluated for common complications of induced septic abortion like hemorrhage, diffuse peritonitis and severe anemia. All the observations were done under guidance of an experienced pathologist possessing requisite standards. Pre-designed Proforma was used for recording of already obtained information. To control confounders and bias in the study results, a strict exclusion criterion was followed.

Data was processed and analyzed by using SPSS version 10.0. Descriptive statistics like mean + Standard deviation was calculated for age, gravidity & parity. Frequency & percentage was calculated for qualitative data like common complications (hemorrhage, diffuse peritonitis and severe anemia). All results were presented in the form of tables.

RESULTS
As per age distribution, 61 (49.60%) patients were recorded in 15-30 Years Age Group. In 31-45 Years Age Group, 62 (50.40%) patients were recorded (Table-I). As per Descriptive Statistics, Mean and SD for Age was recorded as 31 Years + 6.61. Mean and SD for Gravidity was recorded as 2 Gravidity + 1.15 and Parity was recorded as 2 Parity + 1.04. (Table-II).

As per distribution of gravidity and parity, 84 (68.29%) patients were having parity equal to or less than two whereas 39 (31.70%) patients were having parity more than two times. 74 (60.16%) patients were having gravidity less than or equal to two times whereas 49 (39.83%) were having gravidity greater than two times. (Table-III). However, 17 (13.82%) had no complications. (Table-IV).

As per common complications, frequencies and percentages for hemorrhage was recorded in 31 (25.20%) patients, diffuse peritonitis was recorded in 49 (39.83%) patients while severe anemia was recorded in 26 (21.13%) patients. (Table-V)
### Table I. Distributions of age, gravidity and parity

| Age          | Frequency | Mean & SD |
|--------------|-----------|-----------|
| 15-30 Years  | 61 (49.60%) |            |
| 31-45 Years  | 62 (50.40%) |            |
| Gravidity    |            |           |
| < 2          | 74 (60.16%) |            |
| > 2          | 49 (39.83%) |            |
| Parity       |            |           |
| < 2          | 84 (68.29%) |            |
| > 2          | 39 (31.70%) |            |

### Table II. Frequencies and percentages for common complications (n=123)

| Complication | Frequency |
|--------------|-----------|
| Hemorrhage   | 31 (25.20%) |
| Diffuse peritonitis | 49 (39.83%) |
| Severe Anemia | 26 (21.13%) |
| Sub Total    | 106 (86.17%) |
| Total        | 123 (100%)  |

### Table III. Stratification of complication (Hemorrhage) with age, gravidity & parity (n=123)

| Age          | Hemorrhage | Frequencies | P-Value |
|--------------|------------|-------------|---------|
| 18-30 years  | Yes        | 17 (13.82%) | 0.499   |
|              | No         | 44 (35.77%) |         |
| Total        |            | 61 (49.60%) |         |
| 31-45 years  | Yes        | 14 (11.38%) | 0.822   |
|              | No         | 48 (39.02%) |         |
| Total        |            | 62 (50.40%) |         |
| Gravidity    |            |             |         |
| < 2          | Yes        | 19 (15.44%) |         |
|              | No         | 55 (44.71%) |         |
| Total        |            | 74 (60.16%) |         |
| > 2          | Yes        | 12 (9.75%)  |         |
|              | No         | 37 (30.08%) |         |
| Total        |            | 49 (39.83%) |         |
| Parity       |            |             |         |
| < 2          | Yes        | 20 (16.26%) | 0.601   |
|              | No         | 64 (52.03%) |         |
| Total        |            | 84 (68.29%) |         |
| > 2          | Yes        | 11 (8.94%)  |         |
|              | No         | 28 (22.76%) |         |
| Total        |            | 39 (31.70%) |         |

### Table IV. Stratification of complication (Diffuse Peritonitis) with age, gravidity & parity (N=123)

| Age          | Diffuse Peritonitis | Frequencies | P-Value |
|--------------|---------------------|-------------|---------|
| 18-30 years  | Yes                 | 21 (17.03%) | 0.077   |
|              | No                  | 40 (32.52%) |         |
| Total        | Yes                 | 61 (49.59%) |         |
| 31-45 years  | Yes                 | 28 (22.76%) |         |
|              | No                  | 34 (27.64%) |         |
| Total        | Yes                 | 62 (50.40%) |         |

### Table V. Stratification of complication (Severe Anemia) with age, gravidity & parity (n=123)

| Age          | Severe Anemia | Frequencies | P-Value |
|--------------|---------------|-------------|---------|
| 18-30 years  | Yes           | 13 (10.57%) | 0.659   |
|              | No            | 48 (39.02%) |         |
| Total        | Yes           | 61 (49.59%) |         |
| 31-45 years  | Yes           | 12 (9.76%)  |         |
|              | No            | 50 (40.65%) |         |
| Total        | Yes           | 62 (50.40%) |         |
| Gravidity%   | < 2           | 18 (14.63%) | 0.287   |
|              | > 2           | 8 (6.50%)   |         |
| Total        | Yes           | 74 (60.15%) |         |
| Parity%      | < 2           | 20 (16.26%) |         |
|              | > 2           | 6 (4.87%)   |         |
| Total        | Yes           | 26 (21.13%) |         |
| Total        | No            | 55 (44.71%) |         |
| Total        | Yes           | 84 (68.29%) |         |
|              | No            | 41 (33.33%) |         |
| Total        | Yes           | 49 (39.83%) |         |
| Total        | No            | 39 (31.70%) |         |

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DISCUSSION
As per age distribution, 61 (49.60%) patients were recorded in 15-30 Years Age Group. In 31-45 Years Age Group, 62 (50.40%) patients were recorded. As per Descriptive Statistics, Mean and SD for Age was recorded as 31 Years + 6.61. Mean and SD for Gravidy was recorded as 2 Gravidy + 1.15 and Parity was recorded as 2 Parity + 1.04. As per distribution of gravidy and parity, 84 (68.29%) patients were having parity equal to or less than two whereas 39 (31.70%) patients were having parity more than two times. 74 (60.16%) patients were having gravidy less than or equal to two times whereas 49 (39.83%) were having gravidy greater than two times. (Table-I)

As per Common Complications, frequencies and percentages for hemorrhage was recorded in 31 (25.20%) patients, diffuse peritonitis was recorded in 49 (39.83%) patients while severe patients. (Table-II) Anemia was recorded in 26 (21.13%)

This study has helped us in finding the common complications among patients with induced septic abortion locally and based upon results of this study various guidelines will now be recommended regarding further policy reconsideration about the induction of abortion at illegal setups and more research work is required to be conducted. The results of this study will now specially be published into the literature to make higher authorities aware about the gravity of the problem locally and make necessary and timely decision regarding prevention and control of induction of abortions locally. 10-12% of maternal deaths are due to complications of miscarriages-abortion in Pakistan which includes both spontaneous as well as induced abortions. The survey by Population Council also reflects that quite high number of women desires abortion for unintended pregnancies. The number of induced abortion on annual basis is approximately 890,000, which indicates that 1 out of 6 pregnancies end up by unsafe manner through induction.10

A study conducted at Pakistan found the complications of septic abortion as purulent vaginal discharge in (56.4%) and vaginal bleeding (34.5%), acute abdomen in 21.8% while 18.9% patients came in shock. Nine percent patients had haematometra while 6.4% develop Disseminated Intravascular Coagulation (DIC).11

Sreelakshmi U et all found in their study at India that Incidence of septic abortion was 6.78 %. Out of 72% of cases undertaken by medical qualified personnel, 14 patients developed complications like, renal failure, peritonitis, septic shock and pelvic abscess.12

Another study in Nigeria included 96 patients with complications of unsafe abortion. According to their results, the most common complication was sepsis, that amount to79.2% of patients while 12.5% of the women developed had urine perforation. The case fatality rate was 16.6%.13

In Brazil 9555 patients with abortion were evaluated. 237 women (2.5%) developed severe complications. Among them 81.9%, had life threatening conditions, 15.2% had near miss mortality and maternal mortality in 3%.14

CONCLUSION
Our study concluded that women aging from 31-45 years having two or more parity and gravidity showed slightly high percentage of complications like hemorrhage, anemia and peritonitis, in comparison to patients having low parity and gravidity. All these complications are preventable through effective contraception and discouraging repeated termination of pregnancy.

REFERENCES
1. Alamin S. Analysis of maternal mortality at Khartoum Teaching Hospital from 1st June to 31st May 2003: UOFK; 2015.
2. Ganatra B, Tuncalp O, Johnston HB, Johnson Jr BR, Gulmezoglu AM, Temmerman M. From concept to measurement: operationalizing WHO’s definition of unsafe abortion. Bulletin of the World Health Organization. 2014; 92(3):155-.
3. Hazra SK, Sarkar PK, Chaudhuri A, Mitra G, Banerjee D, Guha S. **Septic abortion managed in a tertiary hospital in West Bengal.** Journal of Basic and Clinical Reproductive Sciences. 2013; 2(1):38-41.

4. Chayachinda C, Thamkhantho M, Bhuwapathanapun M, Srinilta A. **Septic abortion: A 5-year experience at Siriraj Hospital.** J Med Assoc Thai. 2012; 95(3):307-12.

5. Nelson DB, Hanlon AL, Wu G, Liu C, Fredricks DN. **First trimester levels of BV-associated bacteria and risk of miscarriage among women early in pregnancy.** *Matern Child Health J*. 2015 Dec. 19(12):2682-7.

6. Cengiz H, Dagdeviren H, Kanawati A, et al. **Ischemia-modified albumin as an oxidative stress biomarker in early pregnancy loss.** *J Matern Fetal Neonatal Med*. 2015 Sep 18. 1-4.

7. Maconochie N, Doyle P, Prior S, Simmons R. **Risk factors for first trimester miscarriage--results from a UK-population-based case-control study.** *BJOG*. 2007 Feb. 114(2):170-86.

8. Sadaf F, Bawar S, Zahid S, Rahim R. **Risk factors of illegal induced abortion.** *KJMS*. 2013; 6(2):273.

9. Alam I, Pervin Z, Haque M. **Intestinal perforation as a complication of induced abortion- a case report and literature review.** *Faridpur Medical College Journal*. 2012; 7(1):46-9.

10. HINA S, KHAN UA, HINA H. **Frequency of gut injuries in unsafe abortion.** *P J M H S* 2016, 10(1); 270-272.

11. Sultana R, Noor S, Fawwad A, Abbasi N, Bashir R. **Septic/unsafe abortion: A preventable tragedy.** Journal of Ayub Medical College Abbottabad. 2012; 24(3-4):154-6.

12. Sreelakshmi U, Thejaswini J, Bharathi T. **The outcome of septic abortion: A tertiary care hospital experience.** The Journal of Obstetrics and Gynecology of India. 2014; 64(4):265-9.

13. Abiodun O, Balogun O, Adeleke N, Farinloye E. **Complications of unsafe abortion in South West Nigeria: A review of 96 cases.** African journal of medicine and medical sciences. 2013; 42(1):111-5.

14. Santana DS, Cecatti JG, Parpinelli MA, Haddad SM, Costa ML, Sousa MH, et al. **Severe maternal morbidity due to abortion prospectively identified in a surveillance network in Brazil.** International Journal of Gynecology & Obstetrics. 2012; 119(1):44-8.

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**AUTHORSHIP AND CONTRIBUTION DECLARATION**

| Sr. # | Author(s) Full Name | Contribution to the paper | Author(s) Signature |
|-------|---------------------|---------------------------|---------------------|
| 1     | Kiran Ikram         | Conceived & designed the analysis, collected data, analysis tools, performed analysis + write paper. | ![Signature](signature1.png) |
| 2     | Surraya Israr       | Data collection, performed analysis, Analysis tools, performed analysis. | ![Signature](signature2.png) |
| 3     | Ubaid Ullah Khan    | Data correction, conceived and designed tool and analysis. | ![Signature](signature3.png) |
| 4     | Umer Farooq         | Data collection, contribution analysis tools. | ![Signature](signature4.png) |
| 5     | Iqbal Begum         | Conceived and designed analysis, performed analysis. | ![Signature](signature5.png) |