ORIGINAL ARTICLE:

Characteristics of abortus patients in Dr. Soetomo Hospital, Surabaya, Indonesia

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ABSTRACT

Objective: The purpose is to uncover the characteristics of abortion patients in Dr. Soetomo general hospital in 2014.
Materials and Methods: This study has analized with descriptive observational method using data from medic records on patient that fulfilled inclusion criterias in Dr. Soetomo general hospital during the periods of January 1st - December 31st 2014. Researcher used various variables such as patient's age, gestational age, parity, previous history of abortion, previous history of contraception and type of abortion. From 40 patients, only 31 patients that fulfilled those inclusion criteria.
Results: This study found that from 31 patients of abortion, the age group is dominated by more than 35 years old (52%). Most gestational age of abortion's patients comes before 20 weeks (68%). Parity occurance is dominated by multiparity (39%). Most of them have no previous history of abortion (55%). Most of them also have no previous history of contraception (65%). And the type of abortion is dominated by Threatened Abortion (61%).
Conclusion: Characteristics of abortion patients based on age are dominated by age over 35 years (52%). Based on gestational age are dominated by gestational age less than 12 weeks (1st trimester) (68%). Based on the parity dominated by multiparous groups (39%). Based on previous history of abortion are dominated by patients who have never experienced abortion before (55%). And based on the type of abortion are dominated by patients who experience Imminent Abortion (61%).

Keywords: Abortion; age; gestational age; parity; previous history of abortion; and type of abortion

ABSTRAK

Tujuan: Tujuan daripada penelitian ini adalah untuk mengetahui karakteristik pada pasien abortus di RSUD Dr. Soetomo pada tahun 2014.
Bahan dan Metode: Penelitian ini menggunakan jenis deskriptif dengan rancangan penelitian observasional. Data didapat dari status rekam medik pasien abortus di RSUD DR. Soetomo periode Januari-Desember 2014. Variabel dalam penelitian ini adalah usia ibu, usia kehamilan, jumlah paritas, riwayat abortus sebelumnya, riwayat penggunaan alat konsepsi (KB), dan jenis abortus yang dialami.
Hasil: Dari 40 pasien abortus hanya 31 pasien yang memiliki data rekam medis yang lengkap. Dalam penelitian ini didapatkan hasil untuk variabel usia didominasi oleh kelompok usia lebih dari 35 tahun (52%). Usia kehamilan didominasi oleh pasien dengan usia kehamilan kurang dari 20 minggu (68%). Jumlah paritas didominasi oleh pasien multiparitas (39%). Sebagian besar tidak mempunyai riwayat abortus sebelumnya (55%) juga tidak memiliki riwayat penggunaan alat konsepsi (KB) (65%). Untuk jenis abortus, didominasi oleh pasien yang mengalami Abortus Imminens (61%).
Simpulan: Karakteristik pasien abortus berdasarkan usia ibu didominasi oleh usia lebih dari 35 tahun (52%), dengan usia paling muda adalah 18 tahun dan usia paling tua adalah 47 tahun. Karakteristik pasien abortus berdasarkan usia kehamilan didominasi usia kehamilannya kurang dari 12 minggu (Trimester I) (68%). Karakteristik pasien abortus berdasarkan jumlah paritas didominasi oleh kelompok multipara (39%). Karakteristik pasien abortus berdasarkan riwayat abortus didominasi oleh pasien yang belum pernah mengalami abortus sebelumnya (55%). Karakteristik pasien abortus berdasarkan jenis abortusnya didominasi oleh pasien yang mengalami Abortus Imminens (61%).

Kata kunci: Abortus; usia; usia kehamilan; paritas; riwayat abortus; riwayat kb; dan jenis abortus

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INTRODUCTION

Abortion means ending of pregnancy before the fetus (unborn child) can live independently outside the mother. Pregnancy termination prior to 20 weeks' gestation or less than 500-g birthweight. Abortion occurs due to several factors including the ovofetal factors, maternal factors, genetic factors, anatomical factors, endocrine factors, infection factors, immuno-logical factors, and endocrine factors. there are also some risk factors that are owned by the mother which can cause abortion. They are maternal age, parity, history of abortion, gestational age, birth history and lifestyle.

The early mechanism of abortion is the loss of all or part of the embryo as a result of minimal bleeding in decidua. Failure of placental function caused by bleeding in subdesidua, make uterine contractions and started the process of abortion. In less than 8 weeks of pregnancy, the embryo is damaged or defective are still wrapped with most decidua and villi chorialis tend removed in toto, although some of the products of conception are still stuck in the uterine cavity or canal servicalis. Vaginal bleeding occurred while processing the products of conception. In pregnancy 8-14 weeks, the above mechanism also occurs or begins with the rupture of the membranes and followed by spending fetal defect, but placenta still left in the uterine cavity. The placenta may already in the cervical canal or still attached to the wall of the uterine cavity. It often cause vaginal bleeding that much. At pregnancy 14-22 weeks, fetus is usually issued and followed by placenta. Sometimes, placenta still left in uterus, that impaired the contraction of uterus and vaginal bleeding that much. Bleeding is generally not too much but the pain is more prominent.

Abortion is classified into Spontaneous Abortion and Provocatus Abortion. Spontaneous abortion is abortion that occurs without mechanical or medical action to emptying uterus.. Another word that is widely used is miscarriage. Spontaneous Abortion is clinically in-distinguishable between threatened abortion, incipient abortion, incompletus abortion, completus abortion, missed abortion, habitual abortion, and septic abortion. Provokatus abortion is a deliberate act of abortion is performed to remove the pregnancy before the age of 28 weeks or fetal weight of 500 grams. This abortion is subdivided into therapeutic abortion (medicinalist abortion), criminalist abortion, and unsafe abortion.

Clinical symptoms of abortion are bleeding, cramping pain, seems like the pain of menstruation, and febrile showing the process of intra genital infections, usually accompanied lochia smell and pain at the time of examination. Serious complications usually occur in phases unsafe abortion although sometimes found also in spontaneous abortion. Complications may include bleeding, renal failure, infection, hemorrhage and shock due to sepsis infection.

Management of abortion are different in every type of abortion. In incipient and incompletus abortion, if there are signs of shock, the first addressed by administration of fluids and blood transfusions. Then, the tissue removed as soon as possible with digital methods and curettage. After that, give uterotonic drugs and anti-biotics. In circumstances where completus abortion entire conceptus is issued (the decidua and fetus), so that the uterine cavity is empty, which is given only uterotonic therapy. For missed abortion, drugs are given with the intention that his going so the fetus and decidua can be removed, if it does not work, do dilatation and curettage. Treatment of endometrial abnormalities in habitual abortion greater results if it done before conception. Smoking and drinking alcohol should be reduced or discontinued. At incompetent cervix, treatment is the surgical operative Shirodkar or McDonald.[1]

MATERIALS AND METHODS

This study has analized with descriptive observational method using data from medic records on patient that fulfilled inclusion criterias in Dr. Soetomo General Hospital. Materials research use secondary data, namely the status of abortion medical records of patients who underwent treatment in Outpatient Installation of Obstetrics and Gynecology Dr. Soetomo General Hospital during the periods of January 1st - December 31st 2014.

RESULTS AND DISCUSSION

From 40 patients, only 31 patients that fulfilled those inclusion criteria.

The distribution of abortion patients by age

From the results of this research, the age of which varies with the youngest age range is 18 years old and the oldest was 47 years old. The ages were divided into 4 groups, they are less than 20 years old, 20-30 years old, 30-35 years old and over 35 years old. Data can be seen in Table 1. Based on Table 1, the age distribution of abortion patients is dominated by patients that over 35 years in as many as 16 people (52%).

Table 1. The characteristics of research data by age of abortion patients that treated in Outpatient Installation of Obstetrics and Gynecology Dr. Soetomo General Hospital 2014.

No	Age Group	Total
1	< 20 years old	6
2	20-30 years old	3
3	30-35 years old	6
4	< 35 years old	16

The distribution of abortion patients by gestational age

Gestational age distribution of abortion patients were classified into 2 groups, they are less than 12 weeks and 12-20 weeks. Th result is, patients with gestational age less than 12 weeks were 21 patients and patients with a gestational age of 12-20 weeks as many as 10 patients. Based on data above, the distribution of gestational age at abortion patients dominated by gestational age less than 12 weeks were 21 patients (68%).

The distribution of abortion patients by parity

Distribution parity of abortion patients are classified into four groups, they are Nullipara, Primipara, Multiparous, and Grandemultipara. Data can be seen in Table 2.

Table 2. The characteristics of research data by parity of patients that treated in Outpatient Installation of Obstetrics and Gynecology Dr. Soetomo General Hospital 2014.

No	Number of parity	Total
1	Nulipara	8
2	Primipara	10
3	Multiparous	12
4	Grandemultipara	1

Table 2 shows that the distribution of the number of parity on abortion patients Multiparas dominated by a total of 12 patients (39%).

The distribution of abortion patients by parity

From the research, there are 14 patients who have history of previous abortion a 17 patients have no history of previous abortion. Based on data, the distribution history of abortion is dominated by patients with no history of previous abortion (55%).

The distribution of abortion patients by history of previous contraception

From the research, there are 11 patients had a history of birth control before the last pregnancy and 20 patients had no history of previous contraception. Based on data, the distribution history of abortion family planning is dominated by patients with no previous history of contraception (65%).

The distribution of abortion patients by type of abortion

From five types of abortion, only three types that occur in 31 patients. They are complete, incomplete, and threatened abortion. Data can be seen in the table below :

Table 3. The characteristics of research data by type of abortion of patients that treated in Outpatient Installation of Obstetrics and Gynecology Dr. Soetomo General Hospital 2014.

No	Type of Abortion	Total
1	Complete Abortion	2
2	Incomplete Abortion	10
3	Threatened Abortion	19

Table 3 shows that the distribution of abortion patients is dominated by threatened abortion (61%).

Age

According to the results of this study, the age of women who experience in abortion was varies, ranging in age from the youngest is 18 years old and the oldest was 47 years old. Age patients were divided into 4 groups, there were less than 20 years, 20-30 years, 30-35 years and over 35 years. Less than 20 years as many as 6 patients (19%), aged 20-30 years by 3 patients (10%), age 30-35 years as many as 6 patients (19%), and age over 35 years as many as 16 patients (52%). World Health Organization (2015) recommends to the age of the safest undergo pregnancy and childbirth is 20-30 years, but given the advances in technology in this era, until the age of 35 years should still be pregnant.[2]

According to Wiknjosastro (2004), maternal mortality in pregnant women and childbirth under 20 years turned out to be 2-5 times higher than in maternal deaths which occurred at 20-35 years old, maternal mortality increased after 35 years and over.[3] Manuaba (1998) stated that complications in pregnancy adolescents (<20 years) was higher than healthy reproductive period between 20-30 years.[4] Cunningham (2005) said that the age less than 20 years are at high risk of pregnancies

that threaten the safety of the mother and baby, this is due to the young age of reproductive organs and functional.[5] This is caused partly because the pelvis is still narrow, the uterine muscle that is not yet fully formed, the blood vessels that supply the endometrium has not been formed because it is still in its.

Gestational age

The second variable is gestational age. Distribution gestation abortion patients were classified into 2 groups, gestational age less than 12 weeks and 12-20 weeks gestation. From the results of this study, patients with gestational age less than 12 weeks were 21 patients (68%) and patients with a gestational age of 12-20 weeks, of 10 patients (32%).

This is consistent with the statement Winkjosastro (2009) found that 60-80% of spontaneous abortion in the first trimester (0-12 weeks), ie 50% due to chromosomal abnormalities, endocrine function disorders 23%, 15% uterine abnormalities and disturbances in embryonic development 12%.[3] Increased risk of spontaneous abortion is supported by as many parity, maternal age and gestational age of the father and the distance is too close. According to Prawirohardjo (2009), at least 50% the incidence of abortion in the first trimester is a cytogenetic abnormalities. Half of abortion because cytogenetic abnormalities in the first trimester in the form of autosomal trisomies.[6]

According to Ratna N, et al (2010), first trimester pregnancy period is a vulnerable time for pregnant women because it is the beginning of the formation of organs, so the conditions are still very weak.[7] This is reinforced by the opinions of Potter and Perry (2005) which states that in the first trimester of three calendar months, the fetal cells continue to differentiate and develop into cells essential organ, and every organ extremely vulnerable to interference from the environment, and in this trimester easily exposed to the teratogen that one of them can lead to spontaneous abortion.[8]

Parity

In addition to gestational age, parity also affect the possibility of the mother experienced abortion. This is consistent with research by Abeysena C, et al (2009) which state that largest proportion of the characteristics contained in the category multiparity parity with the 54.8% proportions.[9] There are also some theories that support this research. One of them was Cunningham (2005) which state that the greater number of births experienced by a mother the higher the risk of complications of pregnancy, childbirth and postpartum.

The risk of spontaneous abortion increases with increasing parity.[5] According Manuaba (2010), a mother who often give birth to her child have health risks.[10] It is risky for the mother can arise damage to the blood vessel wall of the uterus that affect the circulation of nutrients to the fetus. The same thing also expressed by Wiknjosastro Hanifa (2004) that infants born to mother with high parity have higher risks of abortion because the pregnancy repeatedly causes the uterus is not healthy.[3] In this case the recurrent pregnancy cause damage to the blood vessel wall of the uterus that affect the circulation of nutrients to the fetus will be reduced compared with a previous pregnancy, which can cause death in infants.

History of previous abortion

A history of previous abortion also affect subsequent pregnancies. From these results, patients who have a history of abortion, as many as 14 patients (45%) and who had no history of abortion were 17 patients (55%). Similarly to previous studies conducted by Wahyuni, 2012 found that the highest number of patients who undergo abortion are patients who have no history of abortion is as much as 55%. This is consistent with the theory of a few experts. Among them are Saifuddin (2002), after the first time SAB has a 15% miscarriage again, whereas if ever two times the risk increased 25%. Some studies predict that the risk of miscarriage after three successive abortion is 30-45%. Cunningham (2005) adds that abortion is thought to have an effect on future pregnancies, either at the onset of pregnancy complications as well as on the results of the pregnancy itself. Women with a history of abortion have a higher risk for premature labor and recurrent.[5]

History of previous contraception

In this variable, the researchers divided into two groups: patients with a history of contraception and patients who are not with a history of contraception. From the research, it was found that 11 patients (35%) had a history of contraception and 20 patients (65%) had no history of contraception. Pregnancy caused due to failure of the use of contraceptives in patients caused by several factors, such as forgetting to take the pill, condoms leak, poor quality, and improper use of contraceptives. In Women's Health Research Foundation (YKP) in 2013 stated that 36.4% incidence of abortion among pregnant women are caused by a failure in the use of contraception (birth control) with an average gestational age of less than 5 months.[11] In essence, in women who are using contraception pregnancy can occur because of a failure in its use. Because the woman felt she was using contraceptives,

she was unaware of her pregnancy, so less aware of the pregnancy and increase the risk of abortion.

Type of abortion

The last variable is the type of abortion. From the research data obtained types of abortion patients experience different. Of the six species studied, only three types of abortions that occur in the patient's mouth into the sample in this study. Among them are abortion Complete as much as 2 patients (7%), abortion is incomplete as many as 10 patients (32%), and threatened abortion were 19 patients (61%).

This is consistent with previous studies conducted by Nuraini, which stated that out of 89 respondents, the group threatened abortion incidence is highest (23.60%).[12] There is no particular theory explaining the incidence of each type of abortion. There is also no theory that explains the reasons why certain types of abortion dominate the population. This variable is only to illustrate the type of abortion that occurs frequently in patients of this study sample.

CONCLUSION

Abortion that occur in Dr. Soetomo General Hospital in 2014 was 40 cases. From 40 patients, there are only 31 patients who have complete medical records.. Patients abortion dominated by age group over 35 years (52%), with the youngest age is 18 years old and the oldest was 47 years old. With a predominantly by gestational age less than 12 weeks of pregnancy (first trimester) (68%). Most patients were multiparas group (39%) and have no history a previous abortion (55%). Most of these patients had no history of previous contraception (65%). And based on type of abortion, dominated by patients with threatened abortion (61%).

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