



## **Overview of Risk Factors for Ectopic Pregnancy at Dr. M. Djamil General Hospital, Padang, Indonesia**

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### **A B S T R A C T**

**Introduction:** Ectopic pregnancy is an emergency condition that is the cause of maternal death during the first trimester of pregnancy. Most extrauterine implantations occur in the fallopian tubes. This study aimed to find an overview factor risk of ectopic pregnancy at Dr. M Djamil General Hospital, Padang, Indonesia. **Methods:** This study was a descriptive observational study and used secondary data from medical record data at the medical record installation of Dr. M Djamil General Hospital, Padang, Indonesia. A total of 100 research subjects participated in this study, and the research subjects met the inclusion criteria. The inclusion criteria in this study were patients with ectopic pregnancy disorders who were treated at Dr. M Djamil General Hospital, Padang, Indonesia, over 18 years of age and had complete medical record data. Data analysis was carried out using SPSS software version 25. Univariate analysis was performed to present the distribution frequency data for each variable test. **Results:** The majority of research subjects had an age range of 26-35 years (55%). The most common risk factors in this study were a history of abortion in a previous pregnancy (47%), parity 0 (46%), and abortion occurring in the first pregnancy (35%). **Conclusion:** Maternal age, history of abortion, parity, and gravidity are risk factors that play a role in the incidence of ectopic pregnancy at Dr. M Djamil General Hospital, Padang, Indonesia.

### **1. Introduction**

In a normal pregnancy, the fertilized oocyte will pass through the fallopian tube toward the uterus. Ectopic pregnancy (EP) occurs when a fertilized egg implants and grows outside the endometrium cavum uterus. Ectopic pregnancy is an emergency condition that is the cause of maternal death during the first trimester of pregnancy. Most extrauterine implantations occur in the fallopian tube. The most frequent place is on ampoule (80%), then successively on pars ismika (12%), fimbria (5%), and pars interstitial (0.2%), implantation that occurs in the ovary (0.2%) and in the cervix (0.2%).

Several risk factors for causing ectopic pregnancy include tubal factors, 5–10 times more in patients with a history of salpingitis. Attachment to the lumen of the tube, resulting in tubal anatomic abnormalities, exposes diethyl stilbesterol-DES intrauterine. History of tubal surgery fallopian including post tubectomy – post tubal reconstruction, post-conservative treatment of ectopic pregnancy, abnormalities zygote. Ovarian factor: external migration, an exogenous hormone of pregnancy that occurs in patients taking progestin-only oral contraceptives (progestin-only pills) due to the relaxing effect of progestin smooth muscle. Other factors are intrauterine devices (IUD), smoking, old age, and a history of repeated abortions.<sup>1-</sup>

The incidence of ectopic pregnancy in the United States more than tripled between 1970 and 1987, from 4.5/1000 pregnancies to 16.8/1000 pregnancies. Data from the Centers for Disease Control and Prevention, the incidence rate of EP in the United States in 1990–1992 was estimated at 19.7/1000 pregnancies. In 1997–2000 there was another increase to 20.7/1000 pregnancies. In Logos, Nigeria, 8.6% of maternal deaths are caused by EP, with a case fatality rate (CFR) of 3.7%. In Norway, the incidence rate of EP increased from 4.3/10,000 pregnancies to 16/10,000 pregnancies during the period 1970–1974 to 1990–1994 and decreased to 8.4/10,000 pregnancies.<sup>7-13</sup> This study aimed to find an overview factor risk of ectopic pregnancy at Dr. Mohammad Hoesin General Hospital, Palembang, Indonesia.

## 2. Methods

This study was a descriptive observational study and used secondary data from medical record data at the Medical Records Installation of Dr. M Djamil General Hospital, Padang, Indonesia. A total of 100 research subjects participated in this study, and the research subjects met the inclusion criteria. The inclusion criteria in this study were patients with

ectopic pregnancy disorders who were treated at Dr. M Djamil General Hospital, Padang, Indonesia, over 18 years of age and had complete medical record data. This study was approved by the medical and health research ethics committee at Dr. M Djamil General Hospital, Padang, Indonesia.

This study made observations on sociodemographic data as well as data on certain risk factors. The risk factors observed were surgery history, contraception history, abortion history, number of children, and gravidity. Data analysis was carried out using SPSS software version 25. Univariate analysis was performed to present the distribution frequency data for each variable test.

## 3. Results and Discussion

Table 1 provides an overview of the risk factors for ectopic pregnancy. The majority of research subjects had an age range of 26–35 years (55%). The most common risk factors in this study were a history of abortion in a previous pregnancy (47%), parity 0 (46%), and abortion occurring in the first pregnancy (35%).

Table 1. Overview of risk factors for ectopic pregnancy.

No.	Variable	Frequency	Percentage (%)
1.	Age		
	18-25 years	22	22
	26-35 years	55	55
	> 35 years	23	23
2.	History		
	Operation history	3	3
	Contraceptive use	15	15
	Abortion	47	47
3.	No	35	35
	Parity		
	Have no children yet	46	46
	1 Child	37	37
	2 children	12	12
	3 children	3	3
4.	> 3 Children	2	2
	Gravidity		
	First	35	35
	Second	32	32
	Third	16	16
	> Three	17	17

The results of this study are in line with studies which state that the most age group is 25–29 with 34.8%, followed by the 30–34 age group with 30.8%.<sup>14-16</sup>

Several other studies have shown that abortion is a risk factor that plays a role in the induction of ectopic pregnancy.<sup>17,18</sup> Studies state that first pregnancies are

26.3%, second pregnancies are 25.6%, third pregnancies are 23.3%, fourth pregnancies, and so on are 24.9%. It can be seen that in this study, there was a shift in the highest number between the first and second pregnancies.<sup>19,20</sup>

#### 4. Conclusion

Maternal age, history of abortion, parity, and gravidity are risk factors that play a role in the incidence of ectopic pregnancy at Dr. M Djamil General Hospital, Padang, Indonesia.

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