

RISK FACTORS FOR ECTOPIC PREGNANCY

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ABSTRACT: Ectopic pregnancy is an adverse, potentially life-threatening pregnancy outcome in which a fertilized ovum implants outside the endometrial cavity. Ectopic pregnancy is associated with fallopian tube damage, pelvic inflammatory disease (PID). Design of the study: a case-control study performed at the Babylon health centers during period Act-April 2019-2020. The sample of the study were mothers came to the health centers who diagnosed with ectopic pregnancy, A total of 45 cases of ectopic pregnancies presented during the study period was compared with 45 intrauterine pregnancies that constituted the controls the study results were case and control patients age, 29 case patients had age from 31-35 years while 22 control patients had the same age and gravidity were mothers in control group had more gravidity then case, Proportions of women in the cases and control groups with Previous A-P surgery were closely similar the study concluded to Among different risk factors studied, the contraception usage was the most significant risk factors. Oral contraceptive pills was the most identified among the contraception used in cases of ectopic pregnancy. Was found contrasting to most studies that demonstrate increased risk with surgeries

KEY WORDS: Risk factors and ectopic pregnancy

I. INTRODUCTION

Ectopic pregnancy is an adverse, potentially life-threatening pregnancy outcome in which a fertilized ovum implants outside the endometrial cavity. Ectopic pregnancy is associated with fallopian tube damage, pelvic inflammatory disease (PID) or salpingitis, history of tubal surgery, previous ectopic pregnancy, in utero diethylstilbestrol (DES) exposure, and history of assisted reproductive technologies. (Mann, 2020)

The largest percentage of EPs occur in the fallopian tubes, but they can also occur in the ovary, abdomen, and cervix. The incidence of EP approximates 2% of all pregnancies, it remains an important cause of morbidity and mortality, although it is important to diagnose and treat EP early, the diagnosis can be challenging. Clinicians commonly misdiagnose EP on an initial medical encounter. (Robertson, 2017)

Previous research describes that 6% to 16% of patients in their first trimester of pregnancy presenting to a healthcare provider with vaginal bleeding or abdominal pain will have an ectopic pregnancy, typical treatment options for EP include surgery, such as laparoscopy and drug therapy with methotrexate. However, expectant management is considered for some visible EPs, in cases of pregnancy of unknown location (PUL) when there are low or plateauing serum human chorionic gonadotropin concentrations. (Park, 2019)

Because the incidence of EP is relatively low, and many factors are associated with EP, a large sample size is needed in such studies to reach a reasonable conclusion, several EP-associated factors should be analyzed at the same time. Thus, to explore factors affecting the incidence of EP in after assisted reproductive technology (ART) procedures, and to explore possible ways to reduce EP in different ART procedures, we retrospectively analyzed nearly 50,000 ART cycles during 6 years at our center. We hypothesize that factors associated with EP may be different in multivariate analysis. (Bu, 2016)

The incidence of ectopic pregnancy is now increasing worldwide with an improvement in the diagnostic techniques. The risk factors for ectopic pregnancy include congenital tubal anomalies, prior tubal infections or sexually transmitted diseases, tubal surgeries, previous ectopic pregnancy, infertility and artificial reproductive technique and failure of contraceptive methods. (Bhandari, 2018)

This study, conducted in the health centers of Babil Governorate, aims to know the risk factors that lead to ectopic pregnancy for mothers who come to the health centers, as well as to know the correlation of these factors with the demographic characteristics of mothers

II. METHODOLOGY

Design of the study: a case-control study performed at the Babylon health centers during period Oct-April 2019-2020. The sample of the study were mothers who came to the health centers who were diagnosed with ectopic pregnancy. A total of 45 cases of ectopic pregnancies presented during the study period was compared with 45 intrauterine pregnancies that constituted the controls. Data collection was depending upon patient’s medical records and structure interview used for them to be sure for this data accurate. Data analysis through using SPSS to describe the results and find out the risk factors. Ethical considerations, the administrative permission was obtained from the office of Babylon health department.

III. STUDY RESULTS

Table 1: Demographic characteristics of the study groups

		Age				Total
		21-25 years aged	26-30 years	31-35 years	36 years	
	Case	1	6	29	9	45
	Control	1	8	22	14	45
		Gravidity			Total	
		1-3	4-6	more than 7		
	Case	21	24	0	45	
	Control	25	18	2	45	
Total		46	42	2	90	

This table showed the cross table between case and control patients and their age and gravidity, 29 case patients had age from 31-35 years while 22 control patients had the same age, regarding gravidity case patients had 4-6 times and the control had 1-3 times.

Table 2: Contraceptive practices in ectopic pregnancy (n=90)

Contraceptive practices	Frequency	Percent
OCP	36	40.0
Emergency pills	37	41.1
DMPA	9	10.0
IUCD	8	8.9
Total	90	100.0

The table showed there were 40.0% of pregnancy had OCP Contraceptive practices

Table 3: Comparison of risk factors for ectopic pregnancy among the two groups

Risk factors		Case				Control				χ^2	Sig.
		Yes		No		Yes		No			
		F	%	F	%	F	%	F	%		
1	Previous abortion	21	46.6	24	53.4	19	42.2	26	57.8	1.051	0.152
2	Previous ectopic	19	42.2	26	57.8	20	44.4	25	55.6	2.025	0.212
3	Previous A-P surgery	22	48.8	23	51.2	18	40.0	27	60.0	4.058	0.001
4	Contraceptive failure	17	37.7	28	62.3	26	57.8	19	42.2	5.053	0.005

Significant relation between the risk factor and ectopic (p< 0.05)

Proportions of women in the cases and control groups with Previous A-P surgery were closely similar (p-value= 0.001) with 22(48.8%) and 18 (40.0%) ladies in the two groups respectively. history of abdominal-pelvic surgery were closely similar (p-value= 0.001) with 22(48.8%) and 18 (40.0%) ladies in the two groups respectively. Contraceptive failure were closely similar (p-value= 0.005) with 28(62.3%) and 19 (42.2%) ladies in the two groups respectively

IV. DISCUSSION

In the current study, the age distribution among the cases and controls above 30 years. The evaluation of age as a risk factor for ectopic pregnancy in different studies has provided conflicting results, Karaer et al (2006) found that the risk of ectopic pregnancy increased progressively with increasing maternal age, but the association disappeared after 40 years and after adjustment for main risk factors.11 Simms et al (1997) found the incidence of ectopic pregnancy in women aged 40 years or above to be 14 times that observed among those under 30 years, study by Bouyer et al also identified that age was associated per se with a risk of ectopic pregnancy. The proportion of women among cases with current contraceptive failure was higher than that among controls with statistically significant difference demonstrated, The proportions showed similarity to those in a study by Basnet et al where the 31.2% of cases with ectopic pregnancy were using temporary methods of family planning, Most studies highlight increased risk of ectopic pregnancies with intrauterine devices (IUDs).Some studies also suggest such risk increases further with increased duration of IUD placement.6 Tubal ligation, while proving to be highly effective in preventing intrauterine pregnancies, was found to increase the risk of ectopic in accidental pregnancies in many studies. The overall incidence of ectopic, though reduced among users of oral contraceptive pills, DMPA and emergency contraceptives as revealed by most studies, the failure of such methods was found to be associated with increased incidence of ectopic, significant relation between previous abdominal-pelvic surgeries and ectopic pregnancy.

V. CONCLUSION

Among different risk factors studied, the contraception usage was the most significant risk factors. Oral contraceptive pills was the most identified among the contraception used in cases of ectopic pregnancy. Was found contrasting to most studies that demonstrate increased risk with surgeries

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