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Assessment risk factors for women with ectopic pregnancy in Al-Zashraa teaching hospital at Al-Najaf city

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Abstract
Ectopic pregnancy (EP) is the leading cause of maternal death during the first trimester of pregnancy, accounting for approximately 10% of all pregnancy-related deaths. It remains to be a condition presenting as a serious health problem for women of childbearing age. It has been shown to reduce subsequent fertility and increase the chances of subsequent EP. Over recent decades, there has been a rise in the incidence of EP. There is extensive literature regarding the potential risk factors for EP. The identified risk factors for EP include age, previous EP, previous pelvic surgery, use of intrauterine devices (IUDs), female sterilization, history of pelvic inflammatory disease, history of infertility and smoking at the time of conception.
Methodology: A descriptive cross sectional study was adopted in order to achieve the stated objectives. The study began from 2 November 2021 to 24 April 2022. A non-probability sampling technique (purposive sample) based on the criteria of patient with only women with ectopic pregnancy sample of (48) woman who admitted who were selected from Al Zahra Teaching Hospital.
Results: The study show the previous abortion was risk factors of ectopic pregnancy which there was high significant association.
Recommends: The study recommends Educational health programs for women regarding risk factors of ectopic pregnancy.

Keywords: Risk factors, ectopic pregnancy, women

Introduction

Ectopic pregnancy (EP) is the leading cause of maternal death during the first trimester of pregnancy, accounting for approximately 10% of all pregnancy related deaths. It remains to be a condition presenting as a serious health problem for women of childbearing age. It has been shown to reduce subsequent fertility and increase the chances of subsequent EP. Over recent decades, there has been a rise in the incidence of EP. There is extensive literature regarding the potential risk factors for EP. The identified risk factors for EP include age, previous EP, previous pelvic surgery, use of intrauterine devices (IUDs), female sterilization, history of pelvic inflammatory disease, history of infertility and smoking at the time of conception. The increased awareness and knowledge on the risk factors for EP could enable an early and accurate diagnosis of the disease, resulting in a reduced need for surgery and fewer complications (Li, *et al*., 2015) [1]. In the general female population, the widely accepted risk factors for EP include tubal damage resulting from pelvic infection (e.g. chlamydia trachomatis, CT) or previous adnexal surgery, smoking, and *in vitro* fertilization (IVF). These risk factors are not necessarily independent of one another, and the risk of EP varies among different populations (Marion, *et al*., 2012) [2] Fertility intention might have an impact on pregnancy outcome. Women not planning to become pregnant often resort to a variety of contraceptive methods, most of which could prevent unwanted pregnancy (intrauterine or ectopic), but if contraception fails, some contraceptive methods, like intrauterine device (IUD) and oral contraceptive pills (OCPs), could potentially increase the EP risk according to the results of a meta-analysis. Women with planned pregnancy include a certain population of females with a history of infertility and/or assisted reproduction technologies (ART). Whether or not the EP risk factors are different in women with planned pregnancy from those in the general female population has not been determined (Li, *et al*., 2014) [3].

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Objectives of the study
1. To determine the main risk factors for women with ectopic pregnancy.
2. To find out relationship between ectopic pregnancy and demographic, Reproductive, medical variables and others.

Methodology
A descriptive cross sectional study was adopted in order to achieve the stated objectives. The study began from 2 November 2021 to 24 April 2022. The study was conducted at from Al Zahra Hospital in AL-Najaf AL-Ashraf City, Iraq a total of the (48) with has women with ectopic pregnancy.

Instrument of the Study
Used for data collection: The instrument was design and constructed by contemplative after reviewing literature and previous studies The questionnaire form consists of (2) parts: Part l: Socio-Demographic Data: This part consists of (5) items, which includes age, residency, level of education, occupational status, monthly income Part 2: Reproductive and medical history: This part consists of (8) items the Gravidity, Parity, Previous abortion, History of EP, Previous infertility, Cesarean section, Previous surgery, sing of contraceptive.

The Statistical Analysis
The following statistical data analysis approaches is used in order to analyze the data of the study under investigation of the statistical package (SPSS) ver. (20), and the Microsoft excel (2010), Descriptive Data Analysis: A-Tables Frequencies (f), Percentages (%) C-Summary Statistics tables including: Mean. Inferential Data Analysis This approach is used to accept or reject the statistical hypothesis, which includes the following: A- Chi-Square test for testing the independency distribution of the observed frequencies, and for measuring the association between the studies variables according to its type.

Results

Table 1: Distribution of Demographical characteristics

Variables		F	%
Age Groups	20–25 years	22	45.8
	26-30 years	15	31.2
	> 30 years	11	23
Mean of age		27.8 ±7.231	
Residence	Rural Area	22	45.8
	Urban Area	26	54.2
Level of education	Read and write	12	25
	Primary school	13	27.1
	Secondary school	15	31.3
	Institute and college	8	16.6
Occupation	Employed	5	10.4
	House wife	43	89.6
Income	Enough	33	68.8
	Not enough	15	31.3

Demonstrate the demographical characteristics of participants, the highest percentage (45.8%) for age group (20–25 years), (54.2%) of sample reside in urban area, most of the participant (27.1%) are graduated from primary school, (89.6%) of them are house wife, (68.8%) of the study sample answer as enough income.

Table 2: Association Between Variables of Participants and their History of Ectopic Pregnancy by using X2 (n=48)

Variables			Ectopic pregnancy		Chi. (Df)	P-value
			Yes	No		
Age groups	20–25 years	F	9	13	1.693ᵃ (2)	0.429 Non sig.
		%	18.75	27		
	26-30 years	F	6	9		
		%	12.5	18.75		
	> 30 years	F	3	8		
		%	6.25	16.75		
Gravidity	Primigravida	F	9	14	0.514ᵃ (1)	0.473 Non sig.
		%	18.7	29.2		
	Multigravida	F	8	17		
		%	16.7	35.4		
Previous abortion	No previous abortion	F	16	8	19.109ᵃ (3)	0.00 High sig.
		%	33.3	16.7		
	Single abortion	F	2	7		
		%	4.1	14.6		
	Twice abortion	F	3	6		
		%	6.3	12.5		
	3 abortion and more	F	5	1		
		%	10.4	2.1		
Previous infertility	Yes	F	2	4	0.001ᵃ (1)	0.971 Non sig.
		%	4.6	8.3		
	No	F	16	26		
		%	33.3	54		
Cesarean section	Yes	F	8	8	3.345ᵃ (1)	0.067 Non sig.
		%	16.7	16.7		
	No	F	10	22		
		%	20.8	45.8		
Using of contraceptive	Yes	F	6	7	1.280ᵃ (1)	0.258 Non sig.
		%	12.5	14.6		
	No	F	12	23		
		%	25	47.9		

Demonstrate the association between variables (Age, Gravidity, Previous abortion, Previous infertility, Cesarean section, and Using of contraceptive) of participants and their history of ectopic pregnancy, which present the significant association between history of ectopic pregnancy with previous abortion, while others variables not present association with ectopic pregnancy history.

Discussion
Part I: Socio-demographic data for incidence: With regard to the socio demographic characteristics of patients under this study, the study results showed that the highest percentage (45.8%) for age group (20–25 years), this result disagree with (Li *et al*., 2015) [1] they are show in there study the (15.06) percentage of sample age (20-24)years old Collage or above. Regarding to residency this study show (54.2%) of sample reside in urban area this result supported by (Shobeir *et al*., 2014) [4] show in there study the majority are Urban area (68.7) %. Concerning the study results for level of education most of the participant (27.1%) are graduated from primary school this result was disagree with (Li, *et al*., 2015) [1] they are show in there study the high percentage of sample from Collage or above. Concerning occupational status most of the study sample are house wife this result disagrees with (Li, *et al*., 2015) [1] they are show in there study the (19.24) percentage are unemployed. Regarding the socio economic status, the results showed that most of the study sample (68.8%) answer as enough income this result disagree with (Li *et al*., 2015) [1] they are show in

there study the(19.45)percentage not enough income.

Part II: Discussion the association Between Variables of Participants and their History of Ectopic Pregnancy:
The current study show the previous abortion was risk factors of ectopic pregnancy which there was high significant association this is supported by (Shaik, *et al*., 2014) [4] they find in there study the previous abortion was commonly identified risk factors for ectopic pregnancy. But, according to age group current study show not significant association with ectopic pregnancy this is supported with (Anorlu, *et al*., 2005) [6] Age, was not the significant risk factors for ectopic pregnancy. Regarding the gravida there is a non-significant association between primigravida, multigravida with ectopic pregnancy this results disagree with (Shaikh *et al*., 2014) [4], Multiparous women were found more prone to ectopic pregnancy that is 31 (51.66%) which close to other studies. (Majhi *et al*., 2007) [7] showed increased risk of ectopic pregnancy in primigravida which is conflicting with the results of our study. Also there is a non-significant association between previous infertility, cesarean section and occurrence of ectopic pregnancy this result disagree with (Karaer *et al*., 2006) [7] they find in their study history of infertility, prior Caesarean section is a factors associated with an increased risk for ectopic pregnancy. In addition, there is a non-significant association between using of contraceptive and ectopic pregnancy this result disagrees with (Parashi *et al*., 2014) [9] The risk of ectopic pregnancy increased with the use of intrauterine device and tubal ligation, whereas decreased with use of oral contraception.

Conclusions
According to the present study, findings and their interpretations, the following conclusion can be generated:
1. Most study subjects showed the majority of participants age group (20– 25 years). The majority of participants are urban residential area, primary school graduated, house wife, regarding socioeconomic status are enough income.
2. The current study show the previous abortion was risk factors of ectopic pregnancy which there was high significant association.

Recommendations
Based on the early stated conclusions, the study recommended the following:
1. Increased health awareness and early diagnosis of ectopic pregnancy.
2. Educational health programs for women regarding risk factors of ectopic pregnancy.

Conflict of Interest
Not available

Financial Support
Not available

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