

Risk factors and presenting complaints of ectopic pregnancy at tertiary care Hospital

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ABSTRACT

Objective: To determine the risk factors and presenting complaints of ectopic pregnancy at tertiary care Hospital.

Material and methods: This cross-sectional study was conducted at gynaecology department of Liaquat University of Medical and health Sciences. Study duration was eight months from March 2020 to September 2020. All the patients diagnosed with ectopic pregnancy, age >15 years and either of parity and gravidity were included in the study. Diagnosis of the ectopic pregnancy was clinical examination, history, urine pregnancy test, culdocentesis and ultrasonography. Stable women underwent transvaginal ultrasonography to assess the adenexal mass, localization of the gestational sec, presence of cardiac flicker, ectopic mass size and any evidence of free fluid in pouch of Douglas. After treatment patients were followed during Hospital stay. All the data was collected via self-made study proforma. Data was analyzed by using SPSS version 20.

Results: A total of 50 women with ectopic pregnancy were studied regarding risk factors and complications. Mean age of the women was 27.31±5.10 years and mean gestational age was 6.11±2.13 weeks. Bleeding and abdominal pain were found to most common complaints. A per suspected most common risk factors pelvic inflammatory disease (PID) was in 20% cases, history of the previous multiple C-sections was in 16% cases and history of conceived after infertility treatment was in 10% cases and among 28% of the cases risk were un-known.

Conclusions: Pelvic inflammatory disease (PID), history of the previous multiple C-sections and history of conceived after infertility treatment were found to be the commonest suspected risk factors. Bleeding and abdominal pain were found to be the most common complaints.

Key words: Ectopic pregnancy, bleeding, etiology

INTRODUCTION

Ectopic pregnancy occurs when a fertilized human ovum sets out of the endometrial and endometrium cavity, such as in the ovaries, fallopian tubes, or abdomen.¹ Ectopic (tubal) pregnancy has been found to be a potentially fatal emergency that, if left untreated, can have serious consequences.^{1,2} With growing patterns of risks improvements in diagnostic methods, the prevalence of tubal pregnancy has risen significantly in recent decades.^{3,4} Ectopic (tubal) pregnancy is 3-fold more common in women of age range 35 to 44 years than in the women aged between 15 and 24 years.⁵ There are several risk factors reported as smoking, pelvic inflammatory condition, induced abortions, history of infertility, IUCD usage and pelvic surgical procedure significantly raise the risks of ectopic pregnancy.^{5,6} However, because of cultural and societal differences, the major risk factors for ectopic pregnancy have been documented to vary in different nations.⁷ Patients with a tubal pregnancy typically experience vaginal bleeding and pain during 6-10 weeks of their pregnancy.⁸ During the previous few decades, ectopic (tubal) pregnancy diagnosis has increased, yet the rupture rate of tubal pregnancy has decreased. On the other hand, quantitative beta hCG measures, minimally invasive surgical intervention and endovaginal ultrasound are all contributing to this declining rate of rupture.^{8,9} Early identification, resuscitation, follow-up, and timely treatment are essential for good management of tubal pregnancy. Ectopic pregnancy is challenging to detect early and needs high index of suspicion by treating physician.¹⁰ This study has been undertaken to assess presenting complaints and risk factors of ectopic pregnancy at tertiary care Hospital.

MATERIAL AND METHODS

This cross-sectional study was conducted at gynaecology department of Liaquat University of Medical and health Sciences. Study duration was eight months from March 2020 to September 2020. All the patients diagnosed with ectopic pregnancy, age >15 years and either of parity and gravidity were included in the study. All the women who were not agreeing to participate in the study were excluded. Complete clinical examination and routine laboratory investigation were done. Diagnosis of the ectopic pregnancy was clinical examination, history, urine pregnancy test, culdocentesis and ultrasonography. All the stable women underwent transvaginal ultrasonography to assess the adenexal mass, localization of the gestational sec, presence of cardiac flicker, ectopic mass size and any evidence of free fluid in pouch of Douglas. After taking informed consent all the women underwent management of ectopic pregnancy as per indications and Hospital protocol and were followed during Hospital stay. All the data regarding demographic information, clinical features, suspected risk factors and complications and blood transfusion was collected via self-made study proforma. Data was analyzed by using SPSS version 20.

RESULTS

A total of 50 women with ectopic pregnancy were studied regarding risk factors. Mean age of the women was 29.86±4.74 years and mean gestational age was 5.98±1.15 weeks, average adnexal mass was 2.98±1.15 cm, mean BMI was 26.23±2.13kg/m² and average beta HCG was 355.75±110.89. Educational status, socioeconomic status, occupational status and residence are showed in table.1

Bleeding and lower abdominal pain were seen in most of the cases. As per suspected risk factors the pelvic inflammatory disease (PID) was in 20% cases, history of the previous multiple C-sections was in 16% cases and history of conceived after infertility treatment was in 10% cases followed previous ectopic pregnancy 6.0%, D&C 4.0%, PCOs 6.0%, appendectomy 4.0%, secondary infertility 08.0%, and Irregular bleeding 4.0%, while 28.0% were found without any suspected risk factor. Table.2

Table.1. Descriptive statistics of demographic variables n=50

Variables		Statistics
Age	Mean±SD	29.86±4.74 years
Gestational age	Mean±SD	5.98±1.15 weeks
Adnexal mass	Mean±SD	2.98±1.15 cm
BMI	Mean±SD	26.23±2.13kg/m ²
Beta HCG	Mean±SD	355.75±110.89
Education	Educated	18(36.0%)
	Uneducated	32(64.0%)
Occupation	House wife	38(76.0%)
	Working lady	12(24.0%)
Residence	Urban	31(62.0%)
	Rural	19(18.0%)
Socio-economic status	Poor	35(70.0%)
	Middle	12(24.0%)
	Upper	03(6.0%)

Table. 2. Risk factors of the ectopic pregnancy n=50

Variables		Frequency	Percent
Presenting features	Bleeding PV	42	84.0
	Lower abdominal pain	48	96.0%
Risk factors	PID	10	20.0%
	Conceived after infertility treatment	05	10.0%
	Previous ectopic pregnancy	03	06.0%
	D&C	02	04.0%
	Appendectomy	02	04.0%
	Cholecystectomy	03	06.0%
	Secondary infertility	04	08.0%
	Previous C-sections	08	16.0%
	Irregular bleeding	02	04.0%
	PCOs	03	06.0%
	Un-known	14	28.0%

DISCUSSION

A total of 50 women with ectopic pregnancy were studied regarding risk factors and complications. Mean age of the women was 27.31±5.10 years and mean gestational age was 6.11±2.13 weeks. On other hand Wakankar R et al¹¹ reported mean age for this study was 29.1±5.42 years. In another study of Darkhaneh RF et al¹² also reported mean age of the rupture ectopic pregnancy women 28.69±0.7years and the mean gestational age was 6.92 ± 2.39 weeks. We found average of β -hCG was 355.75±110.89IU/ml. On

other hand Darkhaneh RF et al¹² reported that the 1851.29±3429.86 IU/ml. In this study mostly were uneducated, poor socioeconomically and housewives.

In this study bleeding and abdominal pain were the most common complications. On other hand Nahar K et al⁵ also reported that 100% cases were seen with the lower abdominal pain, 70% cases had amenorrhea and 50% cases had vaginal bleeding

In this study most common suspected risk factors were pelvic inflammatory disease (PID), history of the previous multiple C-sections, history of conceived after infertility treatment followed previous ectopic pregnancy, D&C and PCOs. Similarly Nahar K et al⁵ reported that Previous miscarriage, IUCD, infertility, and the pelvic inflammatory disease seen as the risk factors of the ectopic Pregnancy, while out of all 42% women had history of previous abortion or miscarriages, infertility 22%, 12% pelvic infection and IUCD users 16%. In the study of Saeed JA et al¹³ reported that the infertility was seen in 11.4% patients, Previous ectopic pregnancy history was in 7.1% patients and PID was 10%. In another study of Goksedef BP et al¹⁴ reported that the 6.8% used IUD, 20.5% were smokers, previous ectopic history was in 11.4%, history of PID was in 10.2% cases and endometriosis was in 4.5% of the cases. However in the study of Shaikh NB et al¹⁵ reported that the out as per risk factors PID was in 45% of the cases, previous abortion history was among 33% of the cases, history of the previous surgery was in 20% cases. In the developing nations estimably 10% of the females admitted to Hospitals due to ectopic pregnancy and ultimately die caused by such condition.¹⁵ However the Ectopic pregnancies are the considerable causative factor of maternal morbidity, due to the acute symptoms like vaginal bleeding and pelvic pain and the long-term issues like problems infertility.¹⁵ As per recent literature there is still bi controversy in the observed risk factors and this study was also a small sample and single center study containing several limitations. However large scale studies are still needed to observe the accurate risk factors.

CONCLUSION

As per study conclusion pelvic inflammatory disease (PID), history of the previous multiple C-sections and history of conceived after infertility treatment were found to be the commonest risk factors. Bleeding and abdominal pain were the most common complaints. Due to some limitations like small sample size and single center study, further large scale studies are recommended.

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