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Original Article

Evaluation of Clinical Features And Outcome Of Ectopic Pregnancy

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Abstract:

Background: An ectopic pregnancy occurs outside the uterus and is a relatively common condition among women of childbearing age. Most ectopic pregnancies occur in the Fallopian tube (so-called tubal pregnancies), but implantation can also occur in the cervix, ovaries, and abdomen.

Objective: To evaluate different presentation and outcome of ectopic pregnancy.

Material and Methods: This study was undertaken among the patients admitted in the Department of Obstetrics and Gyrtaecology, Dhaka National Medical College Hospital, Dhaka during the period from October 2017 to March 2018. Clinical evaluation of cases of ectopic pregnancy in terms of sociodemographic factors, presentations, risk factors, examination findings, per operative findings and management offered to the patients.

Results: Most of the patients were 20-30 years age group and mean age was 28.08±4.24 years. Commonest presentation was lower abdominal pain (94%), amenorrhoea (100%), P/V bleeding (38%) and syncopal attack (48%). Previous history of abortion/MR (50%), history of pelvic infection (30%) and history of D&C (16%) constitute the main bulk of risk factors. Most of the patients managed by laparotomy followed by salpingectomy which is still the standard treatment in many cases.

Conclusion: Study has found that previous abortions are major etiological factor for ectopic pregnancy than previous pelvic infection. Most of the patients were managed by laparotomy. The general public should be made aware the sign and symptoms of ectopic pregnancy. Proper and modern diagnostic tools and training programme for these should be made available in all tertiary level hospital.

Key words: Ectopic pregnancy, Fallopian tube, Abdonen.

Introduction

Ectopic pregnancy is a condition where the fertilized ovum gets implanted and develops in a site other than normal uterine cavity. It presents a major health problem for women of childbearing age. Given the potential mortality & reduced subsequent fertility associated with this condition, the trend toward increased ectopic pregnancy is of serious concern.[1] Over the last few decades, the incidence of ectopic pregnancy has increased almost to the extent of an epidemic disease. Ectopic pregnancy is one of the commonest acute abdominal emergencies.[2,3,4]

The most common sites of Ectopic pregnancies are Fallopian tube (95 to 98% of cases) including ampullary (55%) isthmic (25%), fimbrial (17%), Interstitial (2%). However they can occur in other locations such as uterine cornue (22.5%) ovary, cervix, and abdominal cavity.[5] It is more common on the right side. Ectopic pregnancy may be concurrent with an intra-uterine pregnancy (Heterotrophic), but these circumstances are rare.[6] It may occur any time from menarche to menopause. One study has conducted that 75% Ectopic pregnancy occurs in the age group 20-30 years.[4]

Multiple factors contribute to the relative risk of ectopic pregnancy. The rising incidence is strongly associated with an increased incidence of PID. The incidence of tubal damage increases after successive episodes of PID (i.e. 13% after 1 episode, 35% after 2 episodes, 75% after 3 episodes). History of prior ectopic pregnancy (7- to 13-fold increase), History of tubal surgery and conception after tubal ligation, Use of fertility drugs or assisted reproductive technology (4-fold increase),

use of an intrauterine device (3-4%), smoking and STD relative risk of Ectopic pregnancy increases with the age of mother, 35-44 years (3-4 fold increase).[7]

Diagnosis of Ectopic pregnancy mostly depends on proper history taking and accurate physical examination. The classic signs and symptoms of ectopic pregnancy include short period of amenorrhoea (85%) followed by abdominal pain (100%) & per vaginal bleeding or intermittent bleeding (50%). Fifty percent have a palpable adnexal mass and 75% presented with cervical movement tenderness. Approximately 20% of patients with Ectopic pregnancy are haemodynamically compromised at initial presentation, which is highly suggestive of rupture.[7]

Management of Ectopic pregnancy depends on proper history taking, physical examination, relevant investigations, improvement of general condition of the patient and then specific treatment. Specific treatment of Ectopic pregnancy are of following types: (i) Expectant management, (ii) Medical management (use of Inj. Methotrexate, 20% potassium chloride, prostaglandins, RU486, Hyperosmolar glucose, vasopressin & actinomycin), (iii) Laparoscopy (if the patient is haemodynamically stable– 35% of Ectopic pregnancy are currently managed Laparoscopycally), and (iv) Laparotomy followed by Salpingostomy or Salpingectomy & Salpingo-oophorectomy. The advent of methotrexate treatment for ectopic pregnancy has reduced the need for surgery. This intervention may be laparoscopic or through a larger incision known as a laparotomy.[7]

Materials and Methods

It was a descriptive type of cross sectional observational study was undertaken among the patients admitted in the Department of Obstetrics and Gyrtaecology, Dhaka Medical College Hospital during the period from October 2012 to March 2013. Total 50 samples were included in this study. Data were collected using a structured questionnaire (research instrument) containing all the variables of interest. The questionnaire was finalized following pre-testing, after taking informed consent from eligible patient. Patient's details were taken from history, record of admission and physical examination was performed and complications were evaluated. Data were analyzed using statistical package for social science (SPSS) for windows version 20.

Results

Table-I: Age distribution of patients (n=50)

Age (in years)	Number	Percentage	Mean±SD
20-25	12	24	28.08±4.24
26-30	26	52	
31-35	9	18	
36-40	3	6	
Total	**50**	**100**	

Table-II: Presenting symptoms of ectopic pregnancy (n=50)

Symptoms	Number of cases	Percentage
Abdominal pain	47	94
H/O of amenorrhoea	50	100
Syncopal attack	24	48
Loss of appetite	10	20
P/V bleeding	19	38
P/V discharge	13	26
Fever	3	6

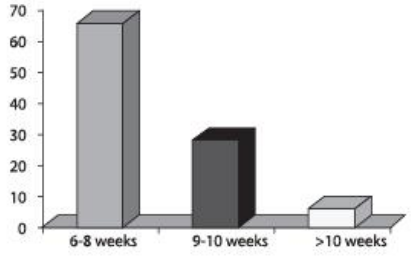

Fig-I: Duration of pregnancy (n=50)

Table-III: Predisposing factors (n=50)

Risk factors	Number of cases	Percentage
Previous abortion/MR	25	50
Pelvic infection	15	30
Previous C/S	6	12
Previous D&C	8	16
Previous IUCD insertion	3	6
Previous ectopic pregnancy	1	2
Previous tubal ligation	1	2
Previous appendicectomy	1	2
Endometriosis	2	2

Table-IV: Sites of ectopic pregnancy (n=50)

Site	Number of cases	Percentage
Tubal		
Isthmus	6	6
Ampulla	44	88
Ectopic sac		
Tube	33	66
Ovary	17	34

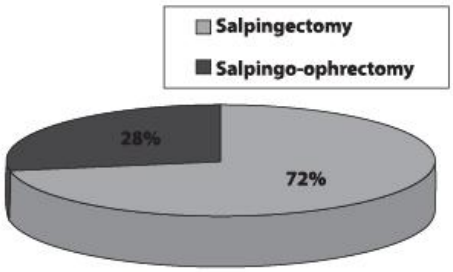

Fig-II: Types of operation performed (n=50)

Table-V : Management

Management	Number of cases	Percentage
Laparatomy	42	84
Medical management	7	14
Expected treatment	1	2

Table-VI: Post operative hospital stay (n=50)

Hospital stay	Number of cases	Percentage
Less than7 days	44	88
More than 8 days	6	12
Total	**50**	**100**

Discussion

Ectopic pregnancy is an implantation of a fertilized egg outside the uterine cavity. It is an important cause of maternal morbidity[8] and mortality. The incidence of ectopic pregnancy varies greatly throughout the world8 and incidence is increasing world wide.[9]

Ectopic pregnancy may occur at any age during the reproductive period. In this study maximum patients (52%) belonged to the age group 26-30 years. The range varied between 20-40 years. Almost similar observation has been made by Archibong et al.[10] and Khan et al.[11] where showed 79.99% patients in 15-34 years of age group. Another study Tom et al. found 81.9% were among the age group of 21-30 years.

The presenting symptoms of ectopic pregnancy were analyzed. It was found that almost all patients had history of amenorrhoea, 94% had lower abdominal pain, 38% had P/V bleeding and 48% gave history of syncopal attack. This finding consisted with Pradhan et al.[12] where they found that 94.4% had abdominal pain and 72% had ammonorrhoea. Storeide[13] had found that 100% had lower abdominal pain, 81% presented with amenorrhoea and 88% with abnormal vaginal bleeding.

This study showed the patients who presented with amenorrhoea, majorities (66%) had short period (6-8 weeks) of amenorrhoea. In a study by Khan et al.[11] showed that 35% had no history of amenorrhoea and 65% had history of amenorrhoea and among them 61.67% had 6-8 weeks amenorrhoea. So other study including this study has showed that commonest duration of amenorrhoea is 6-8 weeks. Another study by Airede et al.[14] found Abdominal tenderness (93%), ammenorrhoea (84%) and vaginal bleeding (62%) were the commonest presentation.

Among the risk factors that was identified in this series are history of previous abortion/MR (50%), pelvic infection (30%), history of ovulation inducing drugs (29.09%) and history of D&C that(16%) constituted the main bulk of risk factors for ectopic pregnancy and H/O taking IUCD (3.63%) came to the next. But no patient had IUCD in situ when presented with ectopic pregnancy. Gharoro et al.[15] showed that 63% had history of previous abortion and 41% had pelvic infection.

Sinnathuria et al.[16] believed that infection following induced abortion is a major cause of PID in Asia and the risk of ectopic pregnancy is 10 times higher in areas with a high incidence of illegal abortion15 and 6 times higher following clinical salpingitis.[17] Several case control studies have reported a strong association between ectopic pregnancy and chlamydial trachomatis infections[18] and gonococcal infection.[19] Unfortunately our patients were not screened for these organisms. Bouyer et al.[20] in a large case control, population based study in France have shown that 1.1% cases had history of previous ectopic pregnancy. So previous history of ectopic pregnancy also a risk factor for recurrent ectopic pregnancy.

This study showed that 72% operation was unilateral salpingectomy and 28% was salpingo-ophorectomy. Airede et al.[14] reported unilateral sulpingectomy was the most frequent procedure that was performed. Pradhan et al.[12] studied that 75% were salpingectomy, 22% salpingo-ophorectomy and 3% salpingostomy.

Archibong et al.[10] has noted that in 90% cases salpingectomy was performed. Most of patients presented with ruptured or grossly damaged tube when conservative treatment where not possible. Another study Khan et al.[11] have shown unilateral salpingectomy in 71% cases, unilateral salpingoophorectomy in 2% cases, unilateral salpingectomy with other sided tubectomy in 24.66% cases, salpingostomy done in 4 cases, removal of abdominal pregnancy in 4 cases and resection of rudimentary horn in 3 cases.

This study shows that in majority (88%) of cases, ampulla were affected and in 66% cases ectopic sac was in fallopian tube. Lozeau et al.[21] reported pregnancies in the fallopian tube account for 97 percent of ectopic pregnancies, 55 percent in the ampulla; 25 percent in the isthmus; 17 percent in the fimbria; and 3 percent in the abdominal cavity, ovary, and cervix. Another study by Pradhan et al.[12] found 80% in ampulla, 11.1% in isthmus, 5.6% in fimbria and 2.8% in ovary.

After opening the abdomen tubal ectopic pregnancy were detected in right side than the left 64% and 36% respectively. Most of our patients 68% had ruptured tubal pregnancy which reflects lack of health facilities in the community level and delay in the diagnosis and delay to take our patients to tertiary level hospital in the moribund state. In 32% cases tubes were found distended and unruptured. Almost similar observation has been made by Bouyer et al.[22] in 10 year population based study of 1800 cases have shown that most (70%) of the tubal pregnancy occur in ampullary part.This study also shows that current IUCD use protects against interstitial pregnancies, which are the most difficult to manage.

This study shows majority of patients were managed by laparatomy (84%) followed by blood transfusion, 58% needed resuscitation, 14% needed medical management, 12% laparsocopic and 2 needed expected management. Medical treatment with systemic methotrexate is considered an acceptable management option for women presenting with haemodynamically stable patients with unruptured, small ectopic sac and low serum HCG values. A randomised trial of clinically stable women with unruptured tubal ectopic pregnancies compared the efficacy of a multiple dose systemic methotrexate regimen to laparoscopic salpingostomy.[23] A study that pooled results from four randomised trials that compared single dose systemic methotrexate to laparoscopic salpingotomy found medical treatment to be significantly less successful than surgery.[24]

Conclusion

This study showed that history of short period of amenorrhoea, abdominal pain, P/V bleeding, syncopal attack were common clinical presentations. The main risk factors were history of previous abortion/MR, history of D&C, ovulation inducing drugs. Most of the patients were managed by laparatomy followed by salpingectomy. The frequency can be reduced by awareness of reproductive health care, liberal contraceptive utilization and acceptable adequate family planning method. Early diagnosis and timely referral may be helpful in treating the patients prior to tubal rupture with decreased morbidity and mortality. We believe that there is a window of opportunity to ascertain the exact causes and suggest appropriate interventions to reduce this upward trend of ectopic pregnancy.

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