Clinical Outcome and Operative Findings with Ectopic Pregnancy at Tertiary Medical College & Hospital

Fahmida Sultana¹, Gulshan Ara², Sayma Afroz³, Rokshana Parvin Nupur⁴, Mashah Binte Amin⁵

Abstract

Introduction: An ectopic pregnancy is an emergency condition worldwide now a days which defined as a pregnancy that progresses after implantation of the blastocyst anywhere other than the endometrium lining the uterine cavity. Objective: In this study our main goal is to identify clinical outcome and operative situation in patients. Materials and Methods: This descriptive study was performed from January 2015 to December, 2018 at tertiary medical college & hospital. During the study 200 patients were evaluated and data was extracted from socio-demographic, menstrual, obstetric and clinical history of the patients. Results: most of the patients belong to 30 years (19.7%) age group and history of pelvic infection (26.26%), induced abortion (17.4%), previous MR (16.26%) and sub fertility (11.25%) were common risk factor in ectopic pregnancy found in the study. Also majority of the patients faced laparotomy followed by right sided salpingectomy (40.40%) which was the most common operation. Conclusion: quick diagnosis, classifying of risk factors and timely intervention in the form of surgical treatment is necessary for reduction mortality rate in ectopic pregnancy.

Keywords: Ectopic pregnancy, Laparotomy, Pelvic infection.

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Introduction

Parenthood, an eternal, universal and inherent dream which every woman has. This dream may not always be satisfying. One of this is ectopic pregnancy: A pregnancy which is associated with life threatening condition. The frequency of ectopic pregnancy varies from place to place even in the same country. Recent proof indicate that the occurrence of ectopic pregnancy such as in France- 15 per 1000 pregnancies and in India-1 in 100 deliveries. In the U.K. there are about 11,000 cases of ectopic pregnancies per year (incidence 11.5) per 1000 pregnancies with 4 deaths. The number of ectopic pregnancies has greater than before in the past few decades in the U.S.A. Established on hospital discharge data, the occurrence of ectopic pregnancy has increased from 4.5 cases per 1000 pregnancies in 1970 to 19.7 cases per 1000 pregnancies in 19924. In the industrialized world, among 1% and 2% of all reported pregnancies are ectopic pregnancies. The incidence is thought to be higher in developing countries, but specific numbers are unknown. Although the incidence in the developed world has remained relatively static in recent years, between 1972 and 1992 there was an estimated six-fold rise in the incidence of ectopic pregnancy. Ectopic pregnancy is a momentous cause for maternal morbidity & mortality as well as fetal loss. There has been a momentous increase in the number of cases of ectopic pregnancy. Pelvic inflammatory disease, induced abortion, history of infertility, use of intrauterine contraceptive device (IUCD) pelvic surgery, STDs are the causative risk factor for ectopic pregnancy.

Tubal ectopic pregnancy which has been removed by salpingectomy.

In this study our main objective is to identify clinical outcome and operative situation with ectopic pregnancy at tertiary medical College & Hospital.

Objective

General objective:
➢ To identify clinical outcome and operative situation in patients.

Specific objective:
➢ To detect risk factors of ectopic pregnancy.
➢ To evaluate operative findings of the patients.
Materials and Methods:
This was a descriptive study. This study was conducted at tertiary medical College & Hospital, from January 2015 to December, 2018. During the study 200 patients data was collected and sampling technique was purposive.

Inclusion criteria are Clinically suspected ectopic pregnancy and Clinically diagnosed ectopic pregnancy supported by positive urinary pregnancy test or serum -hCG and USG findings.

Exclusion criteria are Patients who were clinically suspected but laparotomy findings ruled out ectopic pregnancy and Ethical consideration- Ethical issue will be addressed duly with due consent from the patient.

Data collection procedure:
➢ After taking informed consent from each patient, a very careful history with particular attention to socio-demographic, menstrual, obstetric and contraceptive history, a thorough physical examination was done and diagnosis was established clinically in majority of cases. Pregnancy test and ultrasonography were done in most cases to support the clinical diagnosis. Hemoglobin estimation and blood grouping were done in all cases.

Statistical analysis:
➢ Data were analyzed in computer based programme Statistical Analysis for Social Science (SPSS) for windows version 12.

Results:
In table-I shows parity in patients with ectopic pregnancy where the peak percentage was among who are Para 2 (41.26%) and incidence is low (3.74%) among those who are nulliparous. The following table is given below in detail:

Table-I: Parity in patients with ectopic pregnancy.

<table>
<thead>
<tr>
<th>Parity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3.74%</td>
</tr>
<tr>
<td>1</td>
<td>6.25%</td>
</tr>
<tr>
<td>2</td>
<td>41.25%</td>
</tr>
<tr>
<td>3</td>
<td>26.26%</td>
</tr>
<tr>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>5 or &gt; 5</td>
<td>9.5%</td>
</tr>
</tbody>
</table>

In figure-1 shows social-economic status of the patients where most of the patients (75.1%) in this study belong to low economy and only 2.5% belongs to higher economy. The following figure is given below in detail:

Figure-1: Social-economic status of the patients.

In table-II shows risk factors of ectopic pregnancy where history of pelvic infection (26.26%), induced abortion (17.4%), previous MR (16.26%) and sub fertility (11.25%) constitute the main bulk of risk factors. The following table is given below in detail:

Table-II: Risk factors of ectopic pregnancy.

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelvic infection</td>
<td>26.26%</td>
</tr>
<tr>
<td>Induce abortion</td>
<td>17.4%</td>
</tr>
<tr>
<td>Previous MR</td>
<td>16.26%</td>
</tr>
<tr>
<td>Sub fertility</td>
<td>11.24%</td>
</tr>
<tr>
<td>IUCD insertion</td>
<td>11.26%</td>
</tr>
<tr>
<td>D&amp;C</td>
<td>10.1%</td>
</tr>
<tr>
<td>LUCS</td>
<td>6.24%</td>
</tr>
<tr>
<td>Any pelvic surgery</td>
<td>3.76%</td>
</tr>
<tr>
<td>Appendectomy, ovarian cystectomy, tubal ligation.</td>
<td>2.4%</td>
</tr>
<tr>
<td>Endometriosis</td>
<td>2.4%</td>
</tr>
<tr>
<td>Previous ectopic pregnancy</td>
<td>1.26%</td>
</tr>
</tbody>
</table>

In figure-2 shows symptoms of ectopic pregnancy where abdominal pain (96.24%) is the leading symptom symptoms of ectopic pregnancy. The following figure is given below in detail:

Figure-2: Symptoms of ectopic pregnancy.

In table-III shows signs of ectopic pregnancy where most of the patients (96.26%) has abdominal tenderness & cervical excitation test was positive 94.99% cases. The following table is given below in detail:

Table-III: Signs of ectopic pregnancy.

<table>
<thead>
<tr>
<th>Signs</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaemia</td>
<td>93.74%</td>
</tr>
<tr>
<td>Abdominal tenderness</td>
<td>96.26%</td>
</tr>
<tr>
<td>P/V bleeding</td>
<td>51.32%</td>
</tr>
<tr>
<td>Cervical exhibition test</td>
<td>94.99%</td>
</tr>
<tr>
<td>uterine enlargement</td>
<td>48.76%</td>
</tr>
<tr>
<td>Adnexal lump</td>
<td>35.1%</td>
</tr>
<tr>
<td>Fullness of pouch of Douglas</td>
<td>51.25%</td>
</tr>
</tbody>
</table>

In figure-3 shows tube affected in the patients where right sided tube (54.5%) has been found affected more than the left. The following figure is given below in detail:

Figure-3: Tube affected in the patients.
In table-IV shows types of operation where all cases were managed surgically. Laparotomy followed by right sided salpingoectomy (40.40%) was the most common operation. The following table is given below in detail:

**Table-IV: Types of operation.**

<table>
<thead>
<tr>
<th>Types of operation</th>
<th>Percentage</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laparotomy</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>➢ Right sided salpingoectomy</td>
<td>40.40%</td>
<td></td>
</tr>
<tr>
<td>➢ Left sided salpingoectomy</td>
<td>36.45%</td>
<td></td>
</tr>
<tr>
<td>➢ Peritoneal toileting in tubal abortion</td>
<td>4.40%</td>
<td></td>
</tr>
<tr>
<td>Laparoscopy</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>➢ Right sided</td>
<td>14.35%</td>
<td></td>
</tr>
<tr>
<td>➢ Left sided</td>
<td>4.10%</td>
<td></td>
</tr>
<tr>
<td>➢ Salpingogostomy</td>
<td>0.3%</td>
<td></td>
</tr>
</tbody>
</table>

In figure-4 shows per operative findings in ectopic pregnancy where most of the cases (88.10%) were hemoperitoneum. Followed by tubal ruptured 8.5%, tubal abortion cases were 2.5%, ovarian ectopic cases were .6%, heterogeneous pregnancy cases were .2% and scar ectopic cases were .1%. The following figure is given below in detail:

**Figure-4: Per operative findings in ectopic pregnancy**

In table-V shows Types management of the patients where most of the cases managed by laparotomy (79.9%). Followed by 18.1 % laparoscopy and under conservative management, 2% methotrexate therapy were used. The following table is given below in detail:

**Table-V: Types of management of the patients**

<table>
<thead>
<tr>
<th>Types of management</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laparotomy</td>
<td>79.9%</td>
</tr>
<tr>
<td>Laparoscopy</td>
<td>18.1%</td>
</tr>
<tr>
<td>Conservative management:</td>
<td></td>
</tr>
<tr>
<td>Methotrexate therapy</td>
<td>2%</td>
</tr>
</tbody>
</table>

**Discussion**

The frequency of ectopic pregnancy has been increasing worldwide, varies country to country even place to place in the same country, even place to place in the same country, such as in Jamaica 1 in 28 deliveries 5,10,11. In this study out of 200 patients most of them belong to 30 years (19.7%) age group. In one study reported that 65% of cases were between the ages of 26-35 years12. And other report identified that 38% of the patients were in age group 26-30 years13. In a local study of 300 cases showed that 79%-99% patients in 15-34 years age group14. In this study we found that the peak percentage was among who are Para 2 the (41.26%) and incidence is low (3.74%) among those who are nulliparous. American Journal of Epidemiology showed different observation from us that para-0 was 39.5% and para-1 35.6%15. But many other study also showed similar result from us that higher incidence of ectopic pregnancy was present among women of para-2 12,14. In one study they reported that ectopic pregnancy was more commonly found in women of low economic status with 90.3%15. During the study we also found that most of the patients (75.1%) belong to low economy and only 2.5% belongs to higher economy. In this study we found that 63.74% of the patients were illiterate. Also 26.26% were primary passed. Only 1.26% patients were graduate. American Journal of epidemiology showed similar result that primary 7.2%, secondary 69.5% and higher 23.3%16. One study reported that patients in ectopic pregnancy were higher in urban areas rather rural areas which supports our study where we found that 58.6% patients’ lives in urban area and only 39.9% patients’ lives in rural. During the study we identified that major risk factor for ectopic pregnancy in patients who had history of pelvic infection 26.26%, induced abortion 17.4%, previous MR 16.26% and sub fertility 11.25%. Which is similar to other study which reported that. In one study reported that 48% cases have H/O PID and another study found PID in 25% cases of. Another study also identified pelvic infection and past history of abortion or MR as the main risk factor for ectopic pregnancy 12. Other report observed 48% cases had prior induced abortion 13. The incidence of unsafe abortion by untrained practitioners is quite high which increases the risk of ectopic pregnancy in our country. Subfertility is a risk factor for ectopic pregnancy in our country. History of subfertility was found 4.59% cases in one study. Use of IUCD is another risk factor for ectopic pregnancy. One study found 17% cases had H/O IUCD insertion. But no patient had IUCD in situ when presented with ectopic pregnancy 18. During the experiment we found that abdominal pain (96.24%) is the leading symptom of ectopic pregnancy. One study also found similar outcome that 90.82% with abdominal pain, 78.57% with history of amenorrhoea. In the study most of the patients (96.26%) has abdominal tenderness & cervical excitation test was positive 94.99% cases. Which is similar to other study 19. One study showed that right sided tube was affected more (79%) in ectopic pregnancy. Which support our study where we found that right sided tube (54.5%) has been found affected more than the left. In the ectopic pregnancy we identified that laparotomy followed by right sided salpingoectomy (40.40%) was the most common operation, which is similar to one study 20. In ruptured ectopic pregnancy hemoperitoneum is one of the life threatening situations which was very common in Bangladesh now a days21.
During the study, we also found that most of the cases (87.10%) were hemoperitoneum. Followed by tubal ruptured 8%, tubal abortion cases were 2.5%, ovarian ectopic cases were .6 %, heterogeneous pregnancy cases were .2% and scar ectopic cases were .1%. Many case report showed similar type of outcome like us 20,21 but other study reported that ruptured cases were 74.86% and tubal abortion cases were 12.85%. During surgery we found that 50.1% patients need ICU support and only 1.5% patients were dead which quiet similar to one study where they found assessed mortality rate of ectopic pregnancy is between 2 and 4/1000 during the study 22.

Conclusion

After many investigation and analysis we can conclude that quick diagnosis, categorizing of underlying risk factors and timely intervention in the form of surgical treatment will help in minimizing the mortality rate associated with ectopic pregnancy.

Conflict of Interest: None.

Acknowledgment:

We would like to thank tertiary medical college & hospital students for their help in data collection.

References:


PMid:16217116 PMCid:PMC1247706


PMid:21665933


PMid:21727242 PMCid:PMC3213855


PMid:20177756 PMCid:PMC2928390


PMid:12543617


were in between 0 to 5 years of age and 64 patients (85.33%) due to corrosive substances. Eye, face & oral cavity affect by corrosive agents like kerosene or sprit, where gastric to hospital timely. Only 53.33% patient came to the hospital 11 mostly in the remote area, and rest of the patients came from urban area.

A total 75 patients were enrolled in this study. Age range was 6 months to 16 years, Male, female ratio was 1.6:1. About 50% of the total patients were in between 0 to 5 years, most of the patient affected by kerosene poisoning (21.33%), and rest of the patients were in between 6 to 5 years.

Table II: Geographical distribution of residence of the patient. Patient's age was one of the important risk factors in acute poisoning in children 13. In rural area children usually take herbs, insecticides and other household products due to lack of ICU support, delayed transportation, and it increases the risk of complications

Table III: Social economic condition of the parents. In India, 7,8 also reported the similar result. In our study, the social economic condition of the parents was poor in 2/3 of the cases. These patients were from poor families.

Table IV: Hospital arrival after ingestion/inhalation of poison. The hospital arrival after ingestion of poison is an important step in improving the outcome of acute poisoning cases. Our study indicates that public awareness must be improved to reduce the delayed presentation in our country which was similar to different countries and regions. It varies from country to country, region to region and different parts of the country. Sometimes children become victims due to lack of ICU support, delayed transportation, and it increases the risk of complications 15, 16, 17. Delayed clinical presentation in cases of children 13 also observed that the 41.33% children were brought to the OPC admitted in hospital.

Table V: Shows that in different cases (33.33%) were asymptomatic. In most of the cases, the patient presented with cyanosis and unconsciousness. In a study in Canada, 8.5% children were asymptomatic.

Table VI: Shows the results of outcome of the cases. Of 75 patients, 48 (64%) patients discharged with good health, and rest of the patients were discharged with sequelae. In a study done in Canada, 8.5% children died, 5.1% children had sequelae, and rest of the patients discharged with good health.

Table VII: Outcome of the cases. In our study, we also found that 60% affected children came to nearby facilities within 3-4 hours. Sometimes children become victims of poisoning due to the wrong thinking and co-operation about this study. It needs to be studied country to country, region to region and different parts of the country.

Discussion:

In the developing country like Bangladesh, the pattern of acute poisoning is different from the developed country. In a study done in developing countries like Indonesia, 8.5% children were born to mothers who were illiterate 14, 15, 16, 17. In developing countries like Bangladesh, 9.33% cases were due to poisoning (9.33%). It mainly occurs in broken or accidental child. In developing countries like Bangladesh, the 9.33% cases were due to poisoning (9.33%). In adults, 13.5% cases were due to inadvertent poisoning, usually take drugs which are usually used for adults, like sedatives, anxiolytics and antidepressants. In developing countries like Bangladesh, 9.33% cases were due to poisoning (9.33%). In adults, 13.5% cases were due to inadvertent poisoning, usually take herbicides, insecticides and other household products like kerosene oil as the most common poisoning and those in the age group 6 months to 8 years accidental poisoning in case of children 13.

Conclusion:

Delayed presentation in our country which was similar to other study in the India, that reported 60% affected Children came to nearby facilities within 3-4 hours. Sometimes children become victims due to lack of ICU support, delayed transportation, and it increases the risk of complications 15, 16, 17. Delayed clinical presentation in cases of children 13. In rural area children accidentally take the poison accidentally (85.33%). On the other hand, most of the patient affected by kerosene poisoning (21.33%) and rest of the patients were in between 6 to 5 years.

Acknowledgments:

None.

References:

3. PMid:3343790
6. PMID:3343790
9. PMid:3343790
12. PMID:3343790
14. PMid:3343790
17. PMID:3343790
19. PMid:3343790