

## ORIGINAL ARTICLE

## ANALYSIS OF TWO YEARS CASES OF ECTOPIC PREGNANCY

Ansa Islam, Aneesa Fawad, Azmat Ali Shah\*, Humaira Jadoon, Iram Sarwar, Aziz-un-Nisa Abbasi

Department of Gynaecology & Obstetrics, \*Department of Anaesthesia, Ayub Teaching Hospital, Abbottabad-Pakistan

**Background:** Ectopic pregnancy is the leading cause of pregnancy related deaths in the first trimester. The aim of this study was to evaluate the frequency of risk factors, clinical presentation, diagnostic methods and site of ectopic pregnancy **Methods:** This descriptive cross sectional study was conducted in Gynaecology and Obstetrical Unit-A of Ayub Teaching Hospital Abbottabad from 1<sup>st</sup> October 2013 to 31<sup>st</sup> October 2015. All women diagnosed with ectopic pregnancy were included in the study. A predesigned proforma was used to record the details about demographic features, risk factors, clinical features at presentation, diagnostic methods and site of ectopic pregnancy. **Results:** Out of total 6675 patients admitted during the study period, 45 cases of ectopic pregnancy were diagnosed with frequency of ectopic pregnancy to be 0.65%. Mean age of the patients was 28.98±5.525. Majority of patients were primigravida 14 (31.3%), 9 (20.0%) gravida 2, 5 (11.1%) gravida 3, 4 (8.8%) gravida 4, 7 (15.5%) gravida 5, 6 (13.3%) found grand multi out of total 45 ectopic pregnancies, 45% of the patients had no identifiable risk factors, however history of infertility 20 (22.22%), history of Pelvic inflammatory disease (PID) 10 (22.22%), previous ectopic 2 (4.44%) and previous abdominal pelvic surgery 3 (6.67%) were identified as common risk factors of 45 ectopic pregnancies. Out of total 45 sufferers 23 (51.11%) were clinically diagnosed, 20 (44.44%) through abdominal ultrasound and 2 (4.44%) through transvaginal ultrasound. The most frequent clinical presentation was amenorrhoea 30 (66.67%) followed by abdominal pain 28 (62.22%), irregular vaginal bleeding 18 (40.00%), asymptomatic patients with routine ultrasound 18 (40.0%) and 10 (22.22%) presented in shock. Twenty-eight (62.2%) of the ectopic pregnancies were found in right sided fallopian tube and 17(37.8%) were found in left sided fallopian tube. The commonest site of ectopic pregnancy was ampulla 29 (64.44%) followed by 11 (24.44%) Isthmus, 4 (8.89%) fimbrial end and 1 (2.22%) were rudimentary horn of uterus out of total 45 ectopic pregnancies. Evidence of 32 (71.1%) patients with ruptured ectopic was recorded. Thirteen (28.9%) were unruptured ectopic. **Conclusion:** Amenorrhoea and abdominal pain are the most consistent features of ectopic pregnancy.

**Keywords:** Ectopic pregnancy; Clinical presentation; Analysis of two years

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## INTRODUCTION

Ectopic pregnancy, the implantation of a fertilized ovum outside the endometrial cavity occurs in approximately 0.5–2% of pregnancies & is potentially life threatening.<sup>1,2</sup> Prevalence of ectopic pregnancy is 1–3% worldwide.<sup>3</sup> Ectopic pregnancy is the leading cause of pregnancy related deaths in the first trimester.<sup>1,4</sup> The possible causes of increase in incidence of ectopic pregnancy are Pelvic inflammatory disease (PID), use of intrauterine contraception device (IUCD), tubal surgical procedures, induced abortion followed by infections, increasing age, smoking etc.<sup>5</sup>

Clinical presentation of ectopic pregnancy is variable.<sup>5,6</sup> Apart from clinical triad of ectopic pregnancy, i.e., pain amenorrhoea and vaginal bleeding, other symptoms like nausea, pain lower abdomen, shoulder pain may also be present.<sup>5</sup> The 95% of ectopic pregnancies occur in fallopian tube and out of which 55% occur in ampulla, 20–25% isthmus, 17% fimbriae, 2–4% in interstitial segment. Other sites of ectopic pregnancy are 0.5–1% ovarian, 0.1% cervical and 0.03% abdominal pregnancy.<sup>7</sup>

Its diagnosis can be difficult. Measurement of serum progesterone, serial serum beta-human chorionic gonadotrophin ( $\beta$ -hCG) levels, transvaginal ultrasonography (TVS) and laparoscopy are the diagnostic tools.<sup>8,9</sup> Early diagnosis and prompt treatment is associated with better outcomes.<sup>10</sup> Treatment options for ectopic pregnancy include medical therapy (methotrexate),<sup>11</sup> surgery (open or laparoscopic)<sup>12,13</sup>. Management depends on individual bases.<sup>14</sup>

## MATERIAL AND METHODS

This descriptive cross sectional study was conducted in Gynae “A” unit of Ayub Teaching Hospital Abbottabad from 1<sup>st</sup> October 2013 to 31<sup>st</sup> October 2015.

All diagnosed cases of ectopic pregnancy during study period were included in the study group. At admission, detailed history was taken from patients including age, obstetric history, last menstrual period, clinical presentation (amenorrhoea, lower abdominal pain, vaginal spotting and bleeding), duration of marriage and past history to rule out risk factors (previous history of ectopic pregnancy, use of IUCD, vaginal discharge, previous abdomino-pelvic surgery).

After history and abdomino-pelvic examination patient was clinically diagnosed and later on confirmed by abdominal or transvaginal ultrasound. Base line investigations including blood complete blood picture, blood group, cross match was sent. These cases were treated and followed till discharge from the hospital.

All details were entered on a predesigned proforma and analysed using SPSS version 16:00. Frequencies and percentages were calculated for the categorical variables.

## RESULTS

The total numbers of admissions during the study period were 6675 with 45 cases of ectopic pregnancy. It gave an incidence of 0.65%. Out of total 45 ectopic pregnancies primigravida were 14 (31.3%), 9 (20.0%) gravida 2, 5 (11.1%) gravida 3, 4 (8.8%) gravida 4, 7 (15.5%) gravida 5, 6 (13.3%) were found grand multigravida.

Majority of the patients had no risk factors of ectopic pregnancy 20 (44.44%), history of infertility was found in 10 (22.22%), history of PID in 10 (22.22%), previous ectopic in 2 (4.44%) and previous abdominal pelvic surgery in 3 (6.67%) out of 45 ectopic pregnancies.

In the present study group, 23 (51.11%) were clinically diagnosed, 20 (44.44%) through abdominal ultrasound and 2 (4.44%) through vaginal ultrasound. The most frequent clinical presentation was amenorrhea 30 (66.67%) followed by abdominal pain 28 (62.22%), irregular vaginal bleeding 18 (40.0%), and asymptomatic patients with routine ultrasound in 18 (40.0%) of ectopic pregnancies. Ten (22.22%) patients presented in shock.

Majority of cases 28 (62.2%) were found in right sided fallopian tube and 17 (37.8%) were found in left sided fallopian tube.

Majority of cases were found in ampulla 29 (64.44%), 11 (24.44%) Isthmus, 4 (8.89%) fimbrial end and 1 (2.22%) were in rudimentary horn of uterus. Ectopic pregnancy was found to be ruptured in 32 (71.1%) of cases and 13 (28.9%) were unruptured

## DISCUSSION

Ectopic pregnancy is a common obstetric emergency in early pregnancy and is an important cause of maternal mortality.<sup>1</sup> In UK the incidence of ectopic pregnancy has been reported to be 12.5 per 1000 deliveries.<sup>15</sup> In India the incidence of ectopic pregnancy is 3.12 per 1000 pregnancies.<sup>4</sup> Frequency of ectopic pregnancy in our study was 0.65% which is comparable to 0.58% in Saudi Arabia<sup>16</sup> and 0.6% in Pakistan<sup>17</sup> but is low as compared to other studies in Pakistan.<sup>1,18,19</sup>

In our study the mean age of the sufferers is 28 years. Same age group seems to be affected in another Pakistan based study.<sup>1</sup> We found that there is increased

risk of ectopic pregnancy in primigravida which is similar to other studies.<sup>20,21</sup> The results of this study conflict with other study conducted in Pakistan in which multiparous women were found more prone to ectopic pregnancy.<sup>17</sup>

Majority of patients in this study did not have any predisposing risk factor as also noted in another study.<sup>22</sup> The cause of ectopic pregnancy in these women may be a dysfunction in the tubal smooth muscle activity.<sup>23</sup>

The result of our study showed increased risk of ectopic pregnancy in patients with history of infertility, PID, previous ectopic pregnancy, previous abdomino- pelvic surgery. They are in agreement with results of other studies.<sup>24-27</sup>

Ectopic pregnancy could present with different symptoms as shown in this study. The most common clinical presentation of ectopic pregnancy was amenorrhea, pain abdomen followed by vaginal bleeding which is consistent with findings of other studies.<sup>28,29</sup> In our study 22% of all women presented with shock at admission. This finding was also consistent with that of other studies conducted which showed a fewer patients presenting with shock<sup>30,31</sup> as compared to some studies showing higher proportion of women presenting with shock<sup>28,32</sup>. 40% of patients did not have any signs and symptoms and they were diagnosed by routine ultrasonography which is conflicting with results of other study in which only 9% of patients were asymptomatic.<sup>33</sup>

In most of the patient's clinical features were used alone to make a diagnosis of ectopic pregnancy. Clinical features alone were also found to be useful in diagnosis of ectopic pregnancy in another study conducted in Pakistan.<sup>28</sup> In our circumstances; it may not be possible nor practical to have advanced sonographic facilities around the clock. In our study, abdominal ultrasonography was found to be superior to vaginal ultrasonography as a diagnostic tool for ectopic pregnancy which differs from the findings of many other authors.<sup>23,34</sup>

In our study the right fallopian tube was more frequently affected than the left tube which correlated with the study done in Nigeria.<sup>20</sup> However there was no significant difference between the side of the tube involved in other studies in literature.<sup>30</sup>

Majority of cases were ampullary pregnancies followed by isthmus, fimbrial and cornual which is comparable with other studies in literature.<sup>35</sup> Most of the cases presented with ruptured ectopic pregnancy which is similar to findings from another study from Pakistan where most of cases are ruptured at presentation.<sup>22</sup> This may be due to fact that still in developing countries most of the patients present late or due to failure of making early diagnosis.

## CONCLUSION

Abdominal pain and amenorrhea are the most consistent features of ectopic pregnancy.

## AUTHORS' CONTRIBUTION

AI contributed in conception of study, designed proforma, data collection, analysis and interpretation of data for the work, writing the draft. AF, helped in data collection. AAS helped in data analysis. HJ, helped in data collection. IS, helped in data collection. AUN supervised the study

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### Address for Correspondence:

**Dr. Ansa Islam**, Department of Gynaecology & Obstetrics, Ayub Medical College & Ayub Teaching Hospital, Abbottabad-Pakistan

Cell: +92 336 101 8478

Email: ansaislam009@gmail.com