

# Characteristics and Presentation of Women with Ectopic Pregnancy

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## ABSTRACT

**Objective:** To determine characteristics and presentation of women with ectopic pregnancy (EP).

**Study Design:** A cross-sectional study.

**Place and Duration of the Study:** The Department of Obstetrics & Gynaecology, Sialkot Medical College, Sialkot Pakistan from January 2021 to December 2021.

**Material and Methods:** A total of 39 women aged between 18 to 45 years and diagnosed with EP were included. Age, parity status, clinical presentation, diagnostic modality and sides affected were noted. A special proforma was designed to record all study data. For statistical analysis, SPSS version 26.0 was employed. Numeric data was shown as mean and standard deviation while categorical variables were represented as frequencies/percentages.

**Results:** In a total of 39 women with ectopic pregnancy, mean age was 28.6±6.4 years while 23 (59.0%) women were aged between 18 to 30 years. There were 9 (23.1%) women who were nulliparous. Residential status of 22 (56.4%) women was rural in 22 (56.4%) patients. Condition of tube revealed ruptured EP among 37 (94.9%) women. Most common clinical presentation was abdominal/pelvic pain in 37 (94.9%) women while amenorrhea and vaginal bleeding were observed in 32 (82.1%) and 30 (76.9%) women respectively.

**Conclusion:** Most commonly observed clinical presentation among women with ectopic pregnancy were abdominal/pelvic pain, amenorrhea and vaginal bleeding while almost half of the patients presented with shock.

**Keywords:** Amenorrhea, abdominal pain, ectopic pregnancy, shock, vaginal bleeding.

## INTRODUCTION

Ectopic pregnancy (EP) is considered to be a gynaecological emergency and is a cause of significant morbidity and mortality.<sup>1</sup> EP is described as "implantation of blastocyst anywhere other than the endometrial lining of the uterine cavity".<sup>2</sup> Literature suggests that 1-2% pregnancies might be diagnosed as EP cases while mortality rates related to EP ranged between 3-7%.<sup>3-5</sup> In comparison to developed countries, the morbidity and mortality rates of EP are estimated to be higher among developing countries.<sup>6</sup> The EP commonly occurs in the fallopian tube but occurrence of EP can also be witnessed in the cervix, ovaries as well as the abdomen. Most EP cases are tubal but around 10% of all EP cases are non-tubal.<sup>7</sup> Non-tubal EP cases are known to cause significantly higher rates of morbidity and mortality when compared to tubal EP cases.

EP is a major threat to pregnancy and inappropriate treatment of EP may also impose threats to fertility potential of the affected women as EP if left untreated may damage important organs like ovaries, fallopian tube or uterus.<sup>6</sup> Clinical presentation of EP has variability so timely identification of EP can be challenging.

A study from India noted amenorrhea, abdominal pain and vaginal bleeding to be most frequent clinical presentation noted in 93.1%, 81.9% and 50% women with EP.<sup>8</sup> Many of the women with EP might end up presenting with non-specific symptoms while others can present with hemodynamic shock.<sup>9</sup> So, it is important to not common trends in clinical characteristics and presentation of EP in our population. The aim of this study was to determine characteristics and presentation of women with ectopic pregnancy. The findings of this study were thought to help in timely anticipation of ectopic pregnancy cases which in turn can further help treatment and outcomes in these women.

## MATERIAL AND METHODS

This cross-sectional study was conducted at the Department of Obstetrics & Gynaecology, Sialkot Medical College, Sialkot Pakistan from January 2021 to December 2021. Written consents were sought from all women participating in this study and all women were explained objectives of this study while assurance was made about the confidentiality of their data. Approval from

"Institutional Ethical Committee" was acquired. Taking 95% confidence level and expected frequency of amenorrhoea as 93.1%<sup>8</sup> among women with EP with margin of error 8%, the sample size was turned out to be 39 cases.

Inclusion criteria was women aged between 18 to 45 years and diagnosed with EP. Exclusion criteria was women with heterotopic pregnancies or those who did not give consent to be part of this study. Age, parity status, clinical presentation, diagnostic modality and sides affected were noted. A special proforma was designed to record all study data. For statistical analysis, SPSS version 26.0 was employed. Numeric data was shown as mean and standard deviation while categorical variables were represented as frequencies/percentages.

## RESULTS

In a total of 39 women with ectopic pregnancy, mean age was 28.6±6.4 years while 23 (59.0%) women were aged between 18 to 30 years. There were 9 (23.1%) women who were nulliparous, 14 (35.9%) primiparous and 16 (41.0%) multiparous. Residential status of 22 (56.4%) women was rural in 22 (56.4%) patients. Condition of tube revealed ruptured EP among 37 (94.9%) women whereas left side was affected in 22 (56.4%) women. Table-1 is showing details about the characteristics of all women with EP.

Table-1: Characteristics of Women with Ectopic Pregnancy (n=39)

Characteristics	Number (%)	
Age	18-30 years	23 (59.0%)
	31-45 years	16 (41.0%)
Parity Status	Nulliparous	9 (23.1%)
	Primiparous	14 (35.9%)
	Multiparous	16 (41.0%)
Residence	Urban	17 (43.6%)
	Rural	22 (56.4%)
Diagnostic Modality	Clinically	24 (61.5%)
	Ultrasonography	14 (35.9%)
	Laparoscopy	1 (2.6%)
Condition of Tube	Ruptured	37 (94.9%)
	Un-ruptured	2 (5.1%)
Sides Affected	Left sided	22 (56.4%)
	Right Sided	17 (43.7%)

Most common clinical presentation was abdominal/pelvic pain in 37 (94.9%) women while amenorrhea and vaginal bleeding

were observed in 32 (82.1%) and 30 (76.9%) women respectively. Figure-1 is showing frequency of clinical presentation of Women with EP.

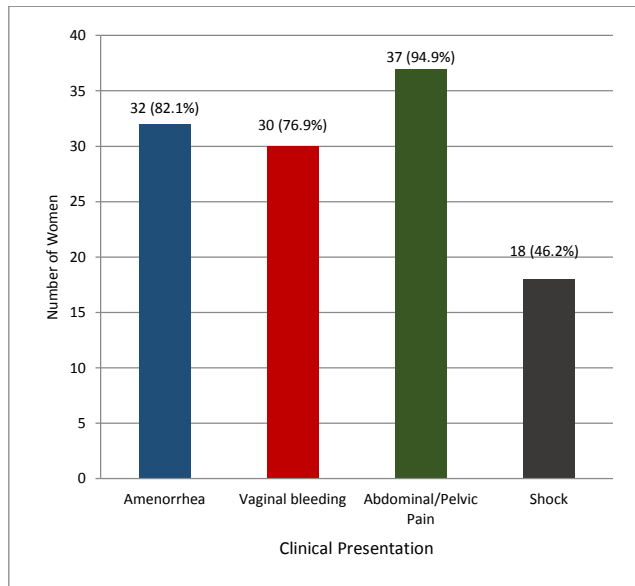


Figure-1: Frequency of Clinical Presentation of Women with Ectopic Pregnancy

### DISCUSSION

Recent data from developed countries has shown that incidence of EP has been slightly rising in the last couple of decades.<sup>10</sup> Recent regional data indicated incidence of EP to be 10.7 per 1,000 deliveries.<sup>11</sup> In the present study, we found that mean age of women with EP was 28.6±6.4 years while 59.0% women were aged between 18 to 30 years. A recent local study found mean age of women with EP to be 29.0±5.1 years which is very close to what we observed.<sup>12</sup> Panchal and colleagues revealed 71.7% women with EP to be between 21 to 30 years of age.<sup>13</sup>

We observed that 23.1% women with EP were nulliparous while 35.9% were primiparous. Gaddagi RA et al revealed 27% of women with EP to be primiparous which is close to what we observed.<sup>14</sup> Andola S et al from Karnataka India showed majority of the women (38.1%) with EP to be nulliparous.<sup>11</sup>

The EP pregnancy has long been recognized as a major pregnancy related health issue among women of reproductive age but timely diagnosis of EP has always been challenging. In the present research, most common clinical presentation was abdominal/pelvic pain in 94.9% women while amenorrhea and vaginal bleeding were observed in 82.1% and 76.9% women respectively. Researchers in the past has shown amenorrhea (83.3%), abdominal pain (73.8%) and vaginal bleeding (59.5%) to be the most frequently observed clinical presentations among women with EP.<sup>11</sup> Local data has shown 100% cases of EP to be presenting with vaginal bleeding, abdominal pain and amenorrhea which is different to what we observed.<sup>12</sup> Another local study found amenorrhea, abdominal pain and irregular vaginal bleeding to be present in 66.7%, 62.2% and 40.0% women with EP whereas 22% women with EP had shock at the time of presentation.<sup>15</sup> We also noted 46.2% women with EP to present with shock which could be due to delayed healthcare seeking behaviors of affected women and their families. Andola S et al noted 16.7% women with EP to present with shock which is quite lower than what we observed.<sup>11</sup> Gaddagi AR et al found 40.5% of women with EP to present with shock which is somewhat similar to the present findings.<sup>14</sup>

Although, recent decades have seen huge advancements in the diagnosis and management of EP but still researches have

shown that nearly half of the women with EP are not correctly diagnosed at first presentation.<sup>16,17</sup> In a resource country like Pakistan, advanced ultrasonographic modalities might not be available all the time for the diagnosis of EP so clinical suspicion and identification of EP could be of great help for the timely management.

Being a single center study with a small sample size were some of the limitations of this research. We were unable to record data about the possible risk factors and their relevance to conditions associated with EP. We could not note management and outcomes of EP among women included.

### CONCLUSION

Most commonly observed clinical presentation among women with ectopic pregnancy were abdominal/pelvic pain, amenorrhea and vaginal bleeding while almost half of the patients presented with shock. Timely identification and management of ectopic pregnancy can reduce the already existing high burden of morbidity and mortality associated with this condition.

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