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# Profile of Ectopic Pregnancy Cases in a Tertiary Hospital

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## ABSTRACT

**Background:** An ectopic or extra uterine pregnancy is one in which the blastocyst implants anywhere other than the endometrial lining of the uterine cavity. The objective of the study was to find incidence, risk factors, clinical presentation and mode of management of ectopic pregnancy.

**Methods:** Observational study was conducted at Paropakar Maternity and Women's Hospital, Thapathali, Kathmandu. All the relevant data were recorded in performa. The collected data were entered in MS Excel and exported into SPSS 26 version for statistical analysis.

**Results:** About one third of the patients 10 (33.3%) was of 25-29 age group. The most common risk factor was pelvic infection in 23 (76.6%) cases, abortion in 11 (36.7%), and abdominal surgery in 8 (26.7%) of cases. The of classic triad of amenorrhea (100%), pain abdomen (99.7%) and per vaginal bleeding (66.7%). Ruptured ectopic seen in 26 (86.7%) cases, unruptured status in 1 (3.3%) case, tubal abortion in 1(3.3%) case and organized ectopic in 2(6.7%) cases. The most common site was found to be ampulla in 23 (76.7%) cases, fimbria 3(10%) cases, corneal in 3(10%) cases and isthmus in 1 (3.3%) case. All the cases managed surgically, of them unilateral salphingectomy, unilateral salphingo-ophorectomy and wedge resection for corneal pregnancy were done in 25(83.3%), 2(6.7%) and 3(10%) cases respectively.

**Conclusions:** Ectopic pregnancy mostly present as ruptured form in young females in our context. Pelvic infection is the commonest risk factor with ampulla being the commonest site. All cases required surgical intervention in form of unilateral salphingo-ophorectomy and wedge resection.

**Keywords:** hCG ; ectopic pregnancy; salphingectomy; ultrasonography; UPT

## INTRODUCTION

Ectopic pregnancy (EP) is one of the commonest acute abdominal emergencies gynaecological practice.<sup>1</sup> It refers to the implantation of a fertilized egg in a location outside of the uterine cavity. It is the important cause of maternal mortality in Asia accounting 0.1% of maternal deaths.<sup>1</sup>

Approximately 1-2% cases are ectopic in developed countries. An increase in the incidence is because of increase in pelvic infection, assisted reproductive techniques (ART) and improvised diagnostic technique.<sup>2</sup> The most important risk factors are prior ectopic pregnancy, pelvic inflammatory disease, previous abortion, ART, smoking, and multiple sexual partners.<sup>3</sup> Patient with an ectopic pregnancy commonly presents with pain abdomen, amenorrhoea and vaginal bleeding.<sup>4</sup>

The aim of this study was to analyze the various aspects of ectopic pregnancy in our set up. It will help in early diagnosis of ectopic pregnancy and thus prevent its complications.

## METHODS

A hospital based observational study was carried out from April 2020 to October 2020 after approval from the institutional review committee, NAMS, Bir Hospital and authority of PMWH. Initially urine pregnancy test were done, followed by ultrasound of lower abdomen and pelvis in all cases. Serum beta hCG level was estimated. In necessary cases Clinical evaluation along with lab investigations findings were used for diagnosing this condition. All relevant clinical details, USG findings and operative findings were recorded in a predefined proforma.

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The collected data was entered in MS Excel and was exported into SPSS 26 version for data analysis.

## RESULTS

Total 30 cases of ectopic pregnancy were included in this study.

**Table 1. Age distribution of the cases (n=30).**

Age group (years)	Frequency (n)	Percentage (%)
20-24	4	13.3
25-29	10	33.3
30-34	7	23.3
35-39	8	26.7
40 and above	1	3.3

One third of the cases were belonged to age group of 25-29. The mean age of the study population was 30.7(SD=5.31) years.

**Table 2. Risk factors in study cases (n=30).**

Risk Factors	Frequency (n)	Percentage (%)
Prior pelvic infection	23	76.7
Abortion	11	36.7
Previous ectopic pregnancy	0	0
Contraception use	22	73.7
Prior pelvic and abdominal surgery	8	26.7

The most common risk factor was pelvic infection in 23 (76.6%).

**Table 3. Clinical presentation of the cases. (n=30).**

Symptoms	Number of cases	Percentages (%)
Amenorrhea	30	100
PV bleeding	20	66.7
Pain abdomen	29	99.7
Dizziness	10	33.3
Fainting	1	3.3
Vomiting	2	6.7

Classic triad of ectopic pregnancy was present in more than two third of the study cases

**Table 4. Nature of ectopic pregnancy in study cases (n=30).**

Ectopic Status	Frequency(n)	Percent
Ruptured	26	86.7
Unruptured	1	3.3

Tubal abortion	1	3.3
Organised	2	6.7

Most of the cases were presented in ruptured state 26(86.7%).

**Table 5. Site of ectopic pregnancy in study cases (n=30).**

Site	Number	Percentage (%)
Ampulla	23	76.7
Isthmus	1	3.3
Fimbria	3	10
Cornual	3	10

The most common site of ectopic pregnancy was ampulla in 23 (76.7%) cases.

**Table 6. Type of surgical procedure done in study cases (n=30).**

Mode of procedure	Frequency (n)	Percentage (%)
Salpingectomy	25	83.3
Salphingo-opherectomy	2	6.7
Wedge resection	3	10

All the cases managed surgically, of them unilateral salpingectomy was conducted in almost all cases 25(83.3%).

All the study patients had uneventful outcome.

## DISCUSSION

This study was conducted to find out clinical profile of ectopic pregnancy. In this study all the women diagnosed with ectopic pregnancy admitted in Paropakar Maternity and Women's Hospital are included. Total 30 cases of ectopic pregnancy are included. In this study detail history, clinical presentation, risk factors and mode of treatment are seen.

Almost one third of the cases in this study were in the age group of 25-29 years. Similar results were found in the studies by Poonam et al<sup>5</sup> and Yeasmin et al.<sup>6</sup> This age group corresponds to the age of peak sexual activity and reproduction. There are studies stating that age related tubal changes thus increasing the incidence of ectopic pregnancy.<sup>6</sup> Many studies have shown that the peak age of ectopic pregnancy incidence was between 20 - 30 years.<sup>7</sup> Yuk et al.<sup>8</sup> showed that older age was associated with high occurrence of ectopic pregnancy in Korea. In older women the risk of defective embryogenesis increases thereby the incidence of ectopic pregnancy

also increases.<sup>8</sup>

Almost one third of the patients 10 (30.0%) in this study were second gravida. Almost one third of the cases were with history of induced abortion. There is a relationship between the parity and risk for ectopic pregnancy. There is a positive association between parity and ectopic pregnancy.<sup>9</sup> Pradhan et al<sup>2</sup> showed the increased incidence of ectopic pregnancy in multiparity.<sup>2</sup>

About two third of the patients 18 (60.0%) in this study were from outside valley. In a study by uk et al. the incidence of ectopic pregnancy is higher among women with low socio-economic status. Low socio economic status may contribute in increased prevalence of sexually transmitted infections and delay in seeking treatment.<sup>10</sup>

The commonest risk factors among the study population were pelvic inflammatory disease, prior history of abortion, abdominal surgery, and use of contraceptive device. Similar risk factors were found in other studies.<sup>2,3,6</sup> The most common cause of ectopic pregnancy in this study was pelvic inflammatory disease 23 (76.7%) followed by previous history of abortion 11(36.7%) which is seen in study conducted by Poonam et al. <sup>5</sup>B.P Koirala Institute of Health Sciences, Dharan (Nepal Basnet et al<sup>1</sup> and Pradhan et al<sup>2</sup> also showed same as shown in this study.

Majority of the patient complains of classic triad of amenorrhea 30(100%), pain abdomen 29(99.7%) and per vaginal bleeding 20(66.7%). The classical triad was found in 20(66.7%) of cases which is almost similar to the study conducted by Mehata et al<sup>10</sup>clinical presentation, risk factors, treatment, and morbidity and mortality associated with ectopic pregnancy. **Methods:** The present retrospective study was conducted over a period of three years in the department of obstetrics and gynecology at SMS and R, Greater Noida, UP from Feb 2014 to Jan 2017. A total of 80 patients with ectopic pregnancy were analyzed regarding clinical presentation, risk factors, operative findings and treatment modality. **Results:** Total number of 80 cases of ectopic pregnancies were admitted during this period against 2645 deliveries representing frequency of 3%. Majority of cases (43.75% which showed 71.2% patients presented with classical triad. Another study by Soren et al<sup>11</sup> showed classical symptoms was present in only 54.2% cases.

In this study, 22 (73.7%) patients used some sort of contraception, of them 12 (40%) cases used i-pill/OCP, 9(30%) uses injectable and 1(3.3%) uses norplant. Levonorgestrel (LNG) - only emergency contraception is a well-established emergency contraception. The rate

of ectopic pregnancies following LNG only emergency contraception failure was 4.1% which was found to be higher than the incidence of ectopic pregnancy is 1.1% to 1.6% in spontaneous pregnancy.<sup>12</sup>

In this study, urinary pregnancy test and USG was done in all patients. Ruptured ectopic pregnancy seen in 26 (86.7%) cases, In this study, cases which is Similar finding was noted in a study by Poonam et al. <sup>5</sup>B.P Koirala Institute of Health Sciences, Dharan (Nepal

In this study, the most common site of ectopic pregnancy was ampulla 23 (76.7%) cases. Basnet et al<sup>1</sup>B.P Koirala Institute of Health Sciences, Dharan (Nepal also found the ampulla is the commonest site of ectopic pregnancy (80% cases).

In the this study all patient underwent surgical management, among which salpingectomy was done in 25 (83.3%) patients and salpingo-ophorectomy in 2 (6.7%) cases, which is almost similar to the study done by Ganitha et al<sup>13</sup> B.P Koirala Institute of Health Sciences, Dharan (Nepal in which salpingectomy was done in 48 (96%). In majority of studies, maximum number of patients underwent surgical management.<sup>1,2,3,7,8,13</sup>

## CONCLUSIONS

Ectopic pregnancy mostly presented as ruptured form in young females in our context. Pelvic infection was the commonest risk factor with ampulla being the commonest site. All cases required surgical intervention in form of unilateral salphingo-opherectomy and wedge resection.

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**Competing interests:** None declared

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