

## ORIGINAL RESEARCH

# Assessment of clinical profile and outcome of ectopic pregnancy in tertiary care hospital

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### ABSTRACT

**Background:** An ectopic pregnancy occurs when a fertilized egg implants and grows outside the main cavity of the uterus. The present study was conducted to assess clinical profile and outcome of ectopic pregnancy. **Materials & Methods:** 58 women with ectopic pregnancy were studied. Parameters such as site of tubal ectopic pregnancy, symptoms, signs, Beta-HCG levels, findings on transabdominal/transvaginal sonography and pregnancy outcome was recorded. **Results:** Site of tubal ectopic pregnancy was ampulla in 30, isthmus in 18, fimbria in 6 and isthmo-ampullar in 4 cases. Beta-HCG levels was <1500mIU/ml in 28, 1500-3000mIU/ml in 18 and 3000-5000mIU/ml in 12 patients. Parity was Nullipara in 8, Primipara in 23 and Multipara in 27 cases. Symptoms were spotting in 21, shock in 27, amenorrhea in 35, and abdominal pain in 17. Signs were palpable adnexal mass in 32 cases, cervical motion tenderness in 25, pallor in 30, and abdomen tenderness in 23 cases. The difference was significant ( $P < 0.05$ ). Outcome was chronic ectopic in 9, tubal abortion in 4, unruptured ectopic in 16 and ruptured ectopic in 29 cases. The difference was significant ( $P < 0.05$ ). **Conclusion:** The most common site of ectopic pregnancy was ampulla and isthmus.

**Keywords:** ectopic pregnancy, adnexal mass, tubal abortion

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### INTRODUCTION

An ectopic pregnancy occurs when a fertilized egg implants and grows outside the main cavity of the uterus. The most common site for an ectopic pregnancy is within a fallopian tube (tubal pregnancy).<sup>1</sup> However, it can also occur in other locations, such as the ovary, abdominal cavity, or the cervix. If therapy is not given in a timely, efficient, and urgent manner, a woman's life could be at jeopardy and her ability to conceive could be affected. The fallopian tube accounts for 98% of ectopic pregnancy cases that occur outside of the uterus.<sup>2</sup> Other locations include the ovary, cervix, uterine cornu, scar ectopic at the site of the previous surgical scar, and abdominal cavity. In the past thirty years, the incidence of ectopic pregnancy has increased two to four times globally. Currently, 1% to 2% of pregnancies are ectopic, and the rate of maternal death is expected to be 0.2 per 1000 occurrences. The incidence of ectopic pregnancy, including primigravidae, appear to have increased at our hospital.<sup>3</sup> The reason of ectopic pregnancy is unknown. Numerous factors raise the possibility of an ectopic

pregnancy. The unifying mechanism of action for these risk factors is interference with fallopian tube function.<sup>4</sup> An egg normally travels from the fallopian tube to the site of implantation following fertilization. Any mechanism that interferes with the normal action of the fallopian tube during this surgery enhances the risk of an ectopic pregnancy. The mechanism could be anatomical (such as scarring that stops the egg from being delivered) or functional (such as diminished tubal motility).<sup>5</sup> The use of intrauterine contraceptive devices, appendicitis, puerperal sepsis, postabortion sepsis, and pelvic inflammatory disease are major risk factors for pelvic infections.<sup>6</sup> The present study was conducted to assess clinical profile and outcome of ectopic pregnancy.

### MATERIALS & METHODS

The present study was conducted at Department of Obstetrics and Gynecology, IGIMS, Patna, Bihar, India during January 2019 to December 2021. This study was conducted on 58 women with ectopic pregnancy. All were informed regarding the study and their written consent was obtained.

Data such as name, age, etc. was recorded. Parameters such as site of tubal ectopic pregnancy, symptoms, signs, Beta-HCG levels, findings on transabdominal/transvaginal sonography and

pregnancy outcome was recorded. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

**RESULTS**

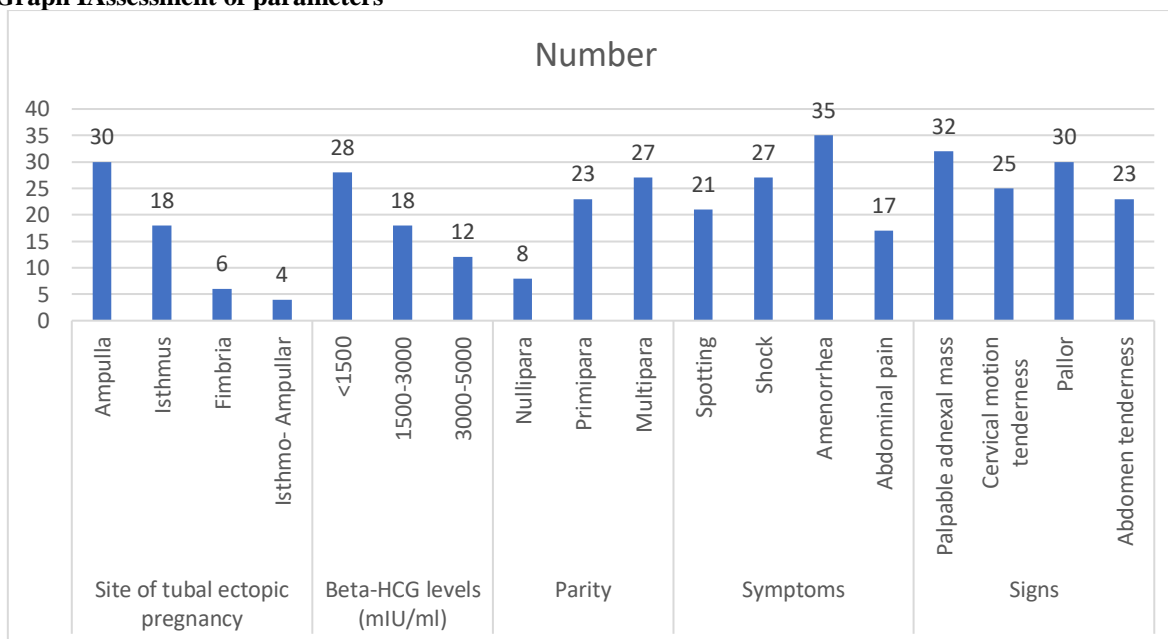
**Table I Assessment of parameters**

Parameters	Variables	Number	P value
Site of tubal ectopic pregnancy	Ampulla	30	0.05
	Isthmus	18	
	Fimbria	6	
	Isthmo-Ampullar	4	
Beta-HCG levels (mIU/ml)	<1500	28	0.04
	1500-3000	18	
	3000-5000	12	
Parity	Nullipara	8	0.89
	Primipara	23	
	Multipara	27	
Symptoms	Spotting	21	0.53
	Shock	27	
	Amenorrhea	35	
	Abdominal pain	17	
Signs	Palpable adnexal mass	32	0.71
	Cervical motion tenderness	25	
	Pallor	30	
	Abdomen tenderness	23	

Table I, graph I shows that site of tubal ectopic pregnancy was ampulla in 30, isthmus in 18, fimbriain 6 and isthmo- ampullar in 4 cases. Beta-HCG levels was <1500mIU/ml in 28, 1500-3000mIU/ml in 18 and 3000-5000mIU/ml in 12 patients. Parity was Nullipara in 8, Primipara in 23 and Multipara in 27 cases.

Symptoms were spotting in 21, shock in 27, amenorrhea in 35, and abdominal pain in 17. Signs were palpable adnexal massin 32 cases, cervical motion tenderness in 25, pallor in 30, and abdomen tenderness in 23 cases.The difference was significant (P< 0.05).

**Graph IAssessment of parameters**



**Table II Outcome of tubal ectopic pregnancy**

Outcome	Number	P value
Chronic ectopic	9	0.03
Tubal abortion	4	
Unruptured ectopic	16	
Ruptured ectopic	29	

Table II shows that outcome was chronic ectopic in 9, tubal abortion in 4, unruptured ectopic in 16 and ruptured ectopic in 29 cases. The difference was significant ( $P < 0.05$ ).

## DISCUSSION

Ectopic pregnancy is one of the most common causes of acute abdominal gynecological crises. It is difficult to ascertain the true incidence of ectopic pregnancy.<sup>7,8</sup> It varies widely between institutions and countries, depending on the diagnosis facilities available and the denominator used in its computations. Globally, while the rate of case fatalities has decreased, overall incidence is still on the rise.<sup>9</sup> Numerous variables, such as an increase in ovulation induction, assisted reproductive technologies, better diagnostic techniques, and more effective antibiotics that permit tubal patency with luminal damage following infection, could be responsible for this. Over 95% of ectopic pregnancies occur in the fallopian tube, making it the most common site for these birth defects.<sup>10</sup> The present study was conducted to assess clinical profile and outcome of ectopic pregnancy.

We found that site of tubal ectopic pregnancy was ampulla in 30, isthmus in 18, fimbria in 6 and isthmo-ampullary in 4 cases. Beta-HCG levels was  $<1500\text{mIU/ml}$  in 28,  $1500\text{-}3000\text{mIU/ml}$  in 18 and  $3000\text{-}5000\text{mIU/ml}$  in 12 patients. Parity was Nullipara in 8, Primipara in 23 and Multipara in 27 cases. Symptoms were spotting in 21, shock in 27, amenorrhea in 35, and abdominal pain in 17. Signs were palpable adnexal mass in 32 cases, cervical motion tenderness in 25, pallor in 30, and abdomen tenderness in 23 cases. Chouinard M et al<sup>11</sup> found that the overall prevalence of ectopic first pregnancy was 14.2 per 1,000 women, of whom 10% of women with an ectopic first pregnancy had a future ectopic. Regardless of age, women with ectopic first pregnancies had an increased risk of adverse birth outcomes at future intrauterine pregnancies, including 1.27 times the risk of preterm birth (95% confidence interval [CI], 1.18-1.37), 1.20 times the risk of low birth weight (95% CI, 1.10-1.31), 1.21 times the risk of placental abruption (95% CI, 1.04-1.41), and 1.45 times the risk of placenta previa (95% CI, 1.10-1.91). Older women with a prior ectopic pregnancy had particularly elevated risks of placental abruption (risk ratio 1.42; 95% CI, 1.16-1.69). Women with ectopic first pregnancies have an increased risk of adverse birth outcomes during subsequent intrauterine pregnancies. These women may benefit from closer clinical management in pregnancy to prevent adverse birth outcomes.

We observed that outcome was chronic ectopic in 9, tubal abortion in 4, unruptured ectopic in 16 and ruptured ectopic in 29 cases. Malik et al<sup>12</sup> determined

and evaluated the incidence, clinical presentation, risk factors, management strategies and outcome of the patients with EP. The incidence of ectopic pregnancy in this study was 1.056%. The mean age of the patients was  $27 \pm 3$  years. Of the 102 ectopic pregnancies, 86 (84.31%) were ruptured ectopic pregnancies, while 16 (15.68%) were unruptured ectopic pregnancies. The commonest clinical complaint was abdominal pain (97 of 102, 95.09%) History of previous abortion (induced or spontaneous) was the commonest risk factor (92 of 102, 90.19%) followed by past history of pelvic inflammatory disease (56 of 102, 54.90%). History of tubal surgery was present in 27 of 102 patients (26.47%). commonest surgical procedure done was emergency laparotomy followed by salpingectomy (67 of 102, 65.68%).

According to Dwivedi et al<sup>13</sup>, adnexal ectopic mass was the most often observed USG finding in 97.2% of cases (70 cases), of which 77.7% (56 cases) had an adnexal mass with mild free fluid in the Douglas pouch on TVS. In 20.8% of the cases, there was fluid in the peritoneal cavity (Morrison pouch on TAS), indicating severe hemoperitoneum. The tubal ampullary region accounted for 45.5% (30 instances) of all ectopic pregnancy cases. This was followed by the isthmus (18.2%) (12 cases), the fimbria end of the tube (10.6%/7 cases), and the isthmus-ampullary region (10.6%/7 cases). 15.2% (10 instances) of medically treated patients had an unknown tubal ectopic location. The individuals who had an ectopic tubule rupture

The shortcoming of the study is small sample size.

## CONCLUSION

Authors found that the most common site of ectopic pregnancy was ampulla and isthmus.

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