

## A Retrospective Study of Ectopic Pregnancies Presenting in a Tertiary Care Centre in Saurashtra

Nita H. Rada<sup>1</sup>, Mohit Jain<sup>2</sup>

### How to cite this article:

Nita H. Rada, Mohit Jain. A Retrospective Study of Ectopic Pregnancies Presenting in a Tertiary Care Centre in Saurashtra. Indian J Obstet Gynecol. 2019;7(2):263-66.

<sup>1</sup>Associate Professor, <sup>2</sup>3<sup>rd</sup> year resident, Department of Obstetrics and Gynecology, Guru Gobind Singh Govt. Hospital, Jamnagar, Gujarat 361008, India.

**Corresponding Author: Mohit Jain**, 3<sup>rd</sup> Year Resident, Department of Obstetrics and Gynecology, Guru Gobind Singh Govt. Hospital, Jamnagar, Gujarat 361008, India.

E-mail: dralpeshb@gmail.com

Received on 10.03.2019; Accepted on 16.04.2019

### Abstract

**Aims:** Aim of this study is to determine the incidence, clinical features, associated risk factors, treatment undertaken along with, morbidity and mortality associated with ectopic pregnancy.

**Methods:** This retrospective study was done in Guru Gobind Singh General Government Hospital, attached to Shri M.P. Shah Medical college, Jamnagar, Gujarat, India. July 2017 to June 2018 for the period of 1 year. The following parameters: age of patient, parity at presentation, gestational age at presentation, associated risk factors, clinical features, site of ectopic gestation, diagnostic methods utilized, mode of treatment, morbidity and mortality were noted.

**Results:** Out of 7700 deliveries, 64 were ectopic pregnancies (0.83%). Ectopic gestation was common in multiparous women (76.56%) and within age group of 20-25 years (40.6%). Common symptoms were abdominal pain (85.93%), amenorrhea (82.8%), bleeding per vaginum (53.12%), asymptomatic (14%) patients. Urine pregnancy test was positive in 96.8%. Right sided ectopic was more common. In fallopian tubes ampulla (68.75%), cornua (10.93%), isthmus (9.37%), fimbria (7.81%), followed by ovarian ectopic (3.12%). About 64% of ectopic were ruptured at presentation. Tubal abortions were noted in 18.75% of ectopic pregnancies. Salpingectomy in 92.2% cases and salpingo-oophorectomy in 3.12% cases were performed in ruptured ectopic.

**Conclusions:** Early diagnosis and identification of underlying risk factors coupled with timely intervention in the form of conservative or surgical treatment will help in reducing the morbidity and mortality due to ectopic pregnancy.

**Keywords:** Early pregnancy; Ectopic pregnancy; Ruptured ectopic; Salpingectomy; salpingo-oophorectomy.

### Introduction

A pregnancy is said to be ectopic when a fertilized ovum implants outside the normal uterine cavity [1]. It is the most important cause of maternal mortality and morbidity in the first trimester [2]. In setting like ours, which mainly serves rural population of low socio-economic class, antenatal care is often ignored, resulting in majority presenting with ruptured ectopic and significant internal hemorrhage.

Risk factors include previous ectopic pregnancy, tubal surgeries, tubal ligation, intrauterine devices, tubal pathology, infertility, assisted reproductive techniques, PID, smoking, prior abortions, multiple sexual partners and priordelivery [3], along with any previous pelvic or abdominal surgery, and pelvic infection [4]. An important point to note is

association of Chlamydia trachomatis in 30-50% of all ectopic pregnancies [5]. Early diagnosis reduces the risk of rupture and allows conservative medical treatments [6]. In order to decrease maternal mortality and morbidity due to ectopic pregnancy, there is a need for early diagnosis, which can be made possible by promoting the importance of Antenatal visits in 1<sup>st</sup> trimester. Provided that mothers come for earliest possible ante-natal visit in 1<sup>st</sup> trimester, early diagnosis and treatment of ectopic pregnancy is possible due to availability of high resolution sonography and beta-hCG testing [7].

## Methods

This study was conducted in the department of obstetrics and gynecology, Guru Gobind Singh Govt. Hospital, attached to Shri M.P. Shah Medical College, Jamnagar, Gujarat, India during the period of July 2017 to June 2018 for the period of 1 year. The case sheets of the patients with ectopic pregnancy were studied through the labor room registers and operation theatre registers and required information were availed.

## Observation & Results

During the study period there were 7700 deliveries and total maternal mortalities during study period were 11.

Total ectopic pregnancies diagnosed during that period were 64, giving an incidence rate of 0.83%. Majority of patients in current study belong to 20 to 25 age group (40.6 %). [Table 1]

In current study, majority of patients are multigravida (76.56%). [Table 2]

Majority of the patients have complaint of lower abdominal pain (85.93%) [Table 3]

As per study no risk factors were noted in 68.75% cases followed by IUCD 17.18% cases and previous ectopic 14% cases [Table 4]

In 96.88% of cases ectopic pregnancy was tubal and it was more common in right side (64%). A majority of the cases were ampullary pregnancies (68.75%). [Table 5]

On laparotomy 64% cases were ruptured ectopic, tubal abortion in 18.75% cases. 11 cases were unruptured. [Table 6]

The most common procedure which was done was unilateral salpingectomy 92.2% of cases followed by salpingo-oophorectomy in 3.12% of

cases. 4.69% of cases were medically managed with methotrexate. [Table 7]

Morbidity included anaemia (75%), Blood transfusion (78.1%) and wound infection (3.12%). No any maternal mortality was due to ectopic pregnancy. [Table 8]

**Table 1:** Distribution of case according to age (n=64)

Sr No.	Age	Number	Percentage (%)
1	<20	6	9.37
2	20-25	26	40.6
3	26-30	18	28.1
4	>30	14	22
Total		64	100

**Table 2:** Distribution of case according to gravida (n=64)

Sr No.	Gravida	Number	Percentage (%)
1	Primi	15	23.43
2	2 <sup>nd</sup>	19	29.69
3	3 <sup>rd</sup> or more	30	46.87
Total		64	100

**Table 3:** Distribution of case according to clinical presentation

Sr. No.	Clinical Presentation	Number*	Percentage (%)
1	Abdominal pain	55	85.93
2	Amenorrhoea	53	82.8
3	Bleeding PV	34	53.12
4	Adnexal Tenderness	30	46.87
5	Asymptomatic	9	14
6	UPT- Positive	62	96.88
7	USG: ruptured ectopic	41	64
8	USG: Unruptured	23	35.93

\*Multiple responses

**Table 4:** Distribution of case according to risk factor involved (n=64)

Sr. No	Risk Factor	Cases	%
1	No risk factors	44	68.75%
2	IUCD	11	17.18%
3	Previous Ectopic	9	14%
Total		64	100

**Table 5:** Distribution of case according to site of ectopic pregnancy (n=64)

Sr. No.	Site of ectopic	Number	Percentage (%)
1	Ampulla	44	68.75
2	Cornual	7	10.93
3	Isthmus	6	9.37
4	Fimbrial	5	7.81
5	Ovarian	2	3.12
Total		64	100

**Table 6:** Distribution of case according to laprotomy finding (n=64)

Sr. No.	Site of ectopic	Number	Percentage (%)
1	Ruptured	41	64%
2	Tubal abortion	12	18.75%
3	Unruptured	11	17.2%
Total		64	100

**Table 7:** Distribution of case according to management of ectopic pregnancy (n=64)

Sr. No.	Site of ectopic	Number	Percentage (%)
1	Salpingectomy	59	92.2%
2	Salpingo ophorectomy	2	3.12%
3	Methotraxate (Medically)	3	4.69%
Total		64	100

**Table 8:** Distribution of case according to morbidity

Sr. No.	Site of ectopic	Number*	Percentage (%)
1	Anaemia	48	75%
2	Blood transfusion	50	78.1%
3	Wound infection	2	3.12%

\*Multiple responses

## Discussion

The incidence of ectopic pregnancy in this study was 8.3 for 1000 deliveries.

Majority of the findings in the present study compare well to other studies in the country. Certain differences, however, can be noted.

In our study nearly 14% of the women had history of previous ectopic pregnancy which is more in comparison to studies done by Samina M et al. (5.26%) and Shabab U et al. (5%) [8,10]. This discrepancy can be explained by greater number of patients being referred to the studied hospital. 17.18% woman with IUCD had ectopic pregnancy which, again is higher compared to studies done by Shetty SK, et al. (6.4%) Shrestha et al. (5%) and Fageeh WM et al. (5.8%). This discrepancy can be explained by greater promotion and utilization of IUCD at the studied hospital [9,11,12]. The risk of tubal pregnancy is higher if a woman conceives with IUCD in situ.

The commonest complaints at presentation were abdominal pain, amenorrhoea and abnormal vaginal bleeding. Clinical signs included abdominal tenderness, cervical excitation and adnexal tenderness. These features help in early diagnosis of ectopic pregnancies. Urinary pregnancy test,

ultrasound and serum beta-hGG were the tools used for diagnosis of ectopic pregnancy.

Serial measurement of beta-hGG concentrations may be useful when the diagnosis remains ambiguous [13].

Ruptured ectopic pregnancy was present in 64%, 17.18% had unruptured ectopic and tubal abortion 18.75%. Surgical management is the method of choice in our country as medical management needs close follow up and admission [14].

Laparoscopy and medical therapy have now emerged as the widely used therapeutic modalities, but the choice depends upon early identification of ectopic pregnancy and vital condition of patient [15,16].

By reducing and identifying the risk factors and diagnosing the patients at the earliest it is possible to improve the prognosis so far as morbidity, mortality, and fertility are concerned [17].

## Conclusion

As most cases were referred, salpingectomy was the modality of choice. However, it must be noted that with improving care and earlier diagnosis, it possible to increase the utilization of conservative medical and surgical modalities for ectopic pregnancies.

## References

- Walker, Clinobstet Gynecol. 2007;50:89-99.
- Mehboob U, Masher SH, Management of ectopic pregnancy, Ayub medical college, Abbottabad, 2006;18(4):34-7.
- Cummingham FG, Leveno, Bloom ST, Hauth JC, Rouse DJ, Spong CY. Ectopic pregnancy: In Williams obstetrics, 23<sup>rd</sup> edition McGraw Hills Publishing. 2010:238-54.
- Karaer A, Avsar FA, Batioglu S. Risk Factors for ectopic pregnancy a case-control study. Aust NZ ObstetGynaecol. 2006;46:521-7.
- Turner C, Horner P. British Fertility Society Guidelines. Hum Fertil (Camb). 2010;13:115-25.
- Barnhart KT, Clinical practice, Ectopic pregnancy. N Engl J Med. 2009 Jul 23;361(4):379-87.
- Ory SJ, Villaneva AL, Sand PK. Conservative treatment of ectopic pregnancy with methotrexate. AM J, obstet, Gynecol. 1986;154:1299-306.
- Shagufta SM, Samina M, REyaz AR, Wasiqa K. Ectopic pregnancy; an analysis of 114 cases. JK practitioner. 2012;17(4):20-3.

9. Shetty S, Shetty A. A clinical study of Ectopic pregnancies in a Tertiary care hospital of Mangalore, India. *Innovative Journal of Medical and Health Science*. 2014;4(1):305-9.
  10. Shabab U, Hasmi HA. Different pattern of presentation of ectopic pregnancy and its management journal of surgery Pakistan (International). 2013;18:1.
  11. Shrestha J, Saha R. Comparison of laparoscopy and laparotomy in the surgical management of ectopic pregnancy: J coll physicians Surgpak. 2012;22:760-4.
  12. Fageeh WM. Diagnosis and management of ectopic pregnancy in king abdulaziz university hospital: a four year experience. *JKAU. Med Sci*. 2008;15(2):15-25.
  13. Murray H, Baakdah H, Bardell T, Tuland T. Diagnosis and treatment of ectopic pregnancy. *CMAJ*. 2005;173(8):905-12.
  14. Chatterjee S, Dey S, Chowdhury RC, Ganguli D. Ectopic pregnancy in previously infertile women pregnancy in previously outcome after laparoscopic Management Al amen J Med Sck. 2009;2(1):67-72.
  15. Jurkovic D, Ectopic pregnancy, IN: Edmonds DK, Editor, Dew Hurst textbook of obstetrics and Gynecology 7ed, USA: Blackwell Publishers. 2007.
  16. Shah N, Khan NH. Ectopic pregnancy, presentation and risk factors. *J Coll Physicians Surg Pak*. 2005 Sep;15(9):535-8.
  17. Majhi AK, Roy N, Karmakar KS, Banerjee PK. Ectopic pregnancy: An analysis of 180 cases. *J, Indian Med Assoc*. 2007;105(6):310-2.
-