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Ectopic tales of kachcch: A study of ectopic pregnancies

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Abstract
Background and Aim: Ectopic pregnancy is assuming greater importance because of its increasing incidence and its impact on women's fertility. Present study was done with an aim to know the prevalence in the all the patients diagnosed with ectopic pregnancy at the tertiary care centre – G.K General Hospital Bhuj and patients referred from surrounding area for the same.
Material and Methods: All patients diagnosed of ectopic pregnancy at tertiary care centre- G.K. General Hospital, Bhuj, Gujarat, India over a period of three months –July, August, September 2018 were enrolled in the study. Patients history was recorded and necessary investigation were done.
Results: The incidence of ectopic pregnancy in this study is 3:187.5 amounting to 1.6% prevalence of ectopic pregnancy the mean age calculated is 24.08 years of presentation with maximum age being 35 years and minimum age being 19 years. Most of the patients – 66.7% are primigravida patients, 8.3% second gravid and 25% third gravid. The aetiological risk factors in this study: 10% had conceived after ovulation inducing drugs, 30% had history of PID, 10% had history of surgery for an adnexal mass, with remaining 50% having no identifiable risk factors. Out of all cases- only two cases were brought in a state of shock with severe hypovolaemia which resulted in one maternal mortality as patient developed Acute STEMI due to coronary vasospasm, i.e 8.33% of all cases**.** Out of all cases 75% were ruptured ectopic pregnancy and only 25% unruptured ectopic pregnancies.
Conclusion: The incidence of ectopic pregnancies is on the rise. All the cases were diagnosed with a high index of clinical suspicion and the USG findings added to the diagnosis. Though the recent trend in the management of ectopic pregnancy is the use of a conservative surgical or medical line of management, radical surgery or salpingectomy was the treatment modality which was used in the present study.

Keywords: Ectopic pregnancies, hypovolaemia, primigravida, risk factors

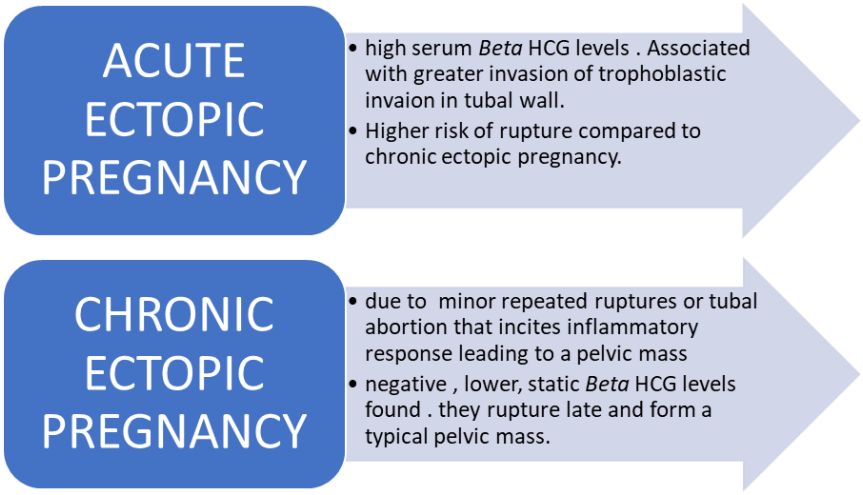
Introduction
In About Six weeks' time the promise was broken. This growing expression of us both ended in its beginning. And the loss took my heart with it as well" - Mary Tyler Moore. An Ectopic or Extrauterine pregnancy is one in which blastocyst implants anywhere other than the endometrial lining, endometrial cavity that is in the cervix, uterine tubes, ovaries, abdominal or pelvic cavities. It is the one of the most life threatening emergency in pregnancy. Ectopic pregnancy is assuming greater importance because of its increasing incidence and its impact on womens fertility [2, 3]. Ectopic pregnancy remains the leading cause of maternal deaths in early pregnancy [4].

It is a common life-threatening emergency with incidence ranges between 0.25% and 2% of all pregnancies and the leading cause of pregnancy-related deaths in the first trimester [4].
The several risk factors that help explain the incidence of ectopic pregnancy are

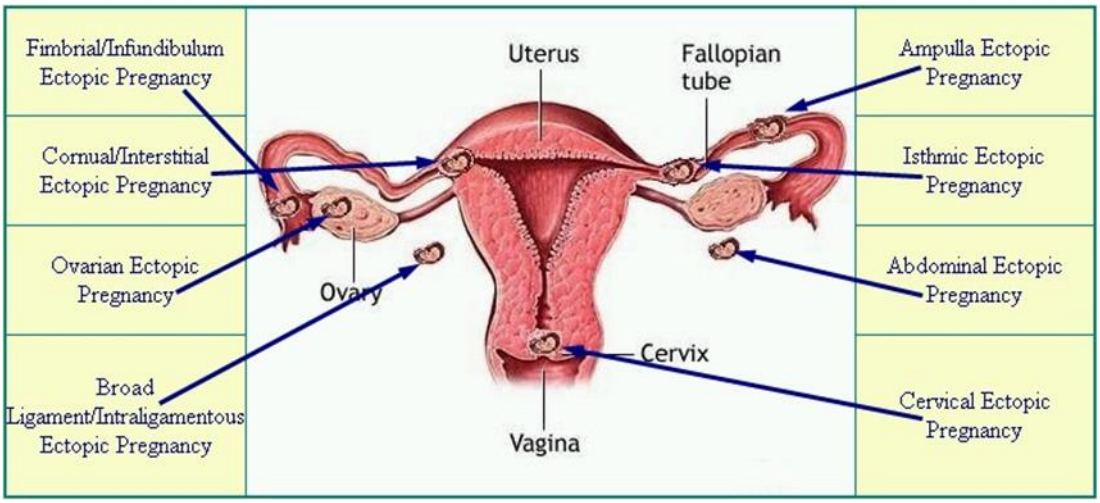
1. Greater sexually transmitted disease prevalence
2. Diagnostic tools with improved sensitivity.
3. Tubal factors infertility
4. Delayed childbearing with Assisted Reproductive Techniques
5. Increased Intra uterine device (IUD)
6. Smoking

There are two types of ectopic pregnancy
The classic symptom triad of ectopic pregnancy is amennorhea followed by vaginal bleeding and ipsilateral abdominal pain.

Shock index is used to evaluate the severity of ectopic pregnancy. It is heart rate divided by systolic blood pressure which helps assess hypovolemia and septic shock. If <0.85 and BP less than 110 mm hg consider ruptured ectopic pregnancy with life threatening emergency.



Types of ectopic pregnancy

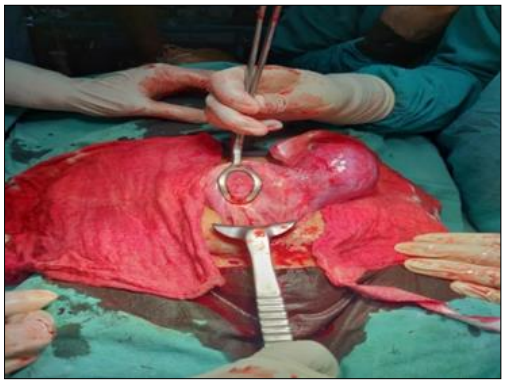


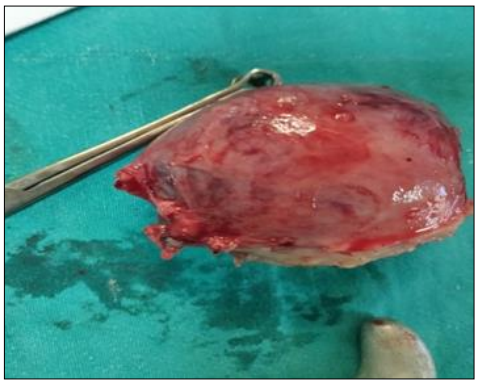
The diagram doesn't depict caesarean scar pregnancy which is another type of ectopic pregnancy.

*Ovarian ectopic pregnancy

Ruptured Right sided Isthmus-Tubal

Left sided ruptured Tubal Ampullary Ectopic Pregnancy Ectopic pregnancy





Pictures of rudimentary horn ectopic pregnancy

Methodology

A cross sectional study was conducted among 12 participants who had admitted to Department of Gynecology, randomly at G.K. General Hospital, Bhuj, Gujarat, India**.**

Source of data

All patients diagnosed of ectopic pregnancy at tertiary care centre- G.K. General Hospital, Bhuj, Gujarat, India over a period of three months –July, August, September 2018 were enrolled in the study.

Inclusion criteria

1. Patients diagnosed with ectopic pregnancy irrespective of its Type of ectopic.

Exclusion criteria

1. Ectopic pregnancy managed conservatively.
2. Cases where hemoperitoneum arising out of ruptured haemorrhagic cysts presenting with same presentation.
3. Laprotomy for other indications.

Invasive procedure

Explorative Laprotomy

Statistical analysis

All these cases were analyzed after applying the inclusion and exclusion criteria with respect to the

1. History
2. Clinical presentation
3. Investigations
4. Treatment

The recorded data was compiled and entered in a spreadsheet computer program (Microsoft Excel 2007) and then exported to data editor page of SPSS version 15 (SPSS Inc., Chicago, Illinois, USA).

Descriptive statistics included computation of percentages, means and standard deviations. For all tests, confidence level and level of significance were set at 95% and 5% respectively.

Results

The study was undertaken at G.K. General Hospital, Gujarat Adani Institute of medical sciences over a three month period of July, August and September 2018. A total of twenty cases were diagnosed.

The incidence of ectopic pregnancy in this study is 3:187.5 amounting to 1.6% prevalence of ectopic pregnancy. The mean age calculated the mean age calculated is 24.08years of presentation with maximum age being 35 years and minimum age being 19 years. (Table 1) Most of the patients – 66.6% are primigravida patients, 8.3% second gravid and 25% third gravid. (Table 2) No cases from fourth parity onwards have been reported. The aetiological risk factors in this study: 8.3% had conceived after ovulation inducing drugs, 25 % had history of PID, 8.3% had history of surgery for an adnexal mass, with remaining 58.3 % having no identifiable risk factors. A majority of cases presented with history of amenorrhea ranging from one to 2 and half months with associated severe pain in abdomen in 83.2 % and 8.3% had come for MTP. (Table 3 and 4).

Out of all cases-only two cases were brought in a state of shock with severe hypovolaemia which resulted in one maternal mortality as the patient developed Acute STEMI due to coronary vasospasm. (Table 5) Suggestive of the fact that all cases are timely diagnosed, timely referred to our tertiary care centre from the peripheral areas of this district due better availability of skilful health professional and resources. Out of all cases 75%

were ruptured ectopic pregnancy and only 25 % unruptured ectopic pregnancies. (Graph 3) We have seen one case of ovarian ectopic pregnancy one case of cornual ectopic pregnancy, one case of rudimentary horn ectopic pregnancy and one case of CS Ectopic Pregnancy (Graph 1) rest all were tubal pregnancies out of which only one was located in the isthmus portion of fallopian tube rest all being ampullary ectopic pregnancy. In these studies 83.3% went for emergency laprotomy and 16.6% went for laproscopy. In all the patients who underwent laprotomy – Majority of them underwent Ipsilatearal Salpingectomy for tubal ectopic pregnanices. None of the cases went for contralateral salpingectomy to prevent the recurrence of ectopic pregnancy as most of the patients were primigravida. Ovarian ectopic pregnancy underwent ipsilateral oophorectomy.

Out of all cases presenting to the hospital and getting operated – either by open / Laprotomy or laparoscopically – Nil blood loss was seen in unruptured cornual ectopic pregnancy operated laparoscopically and caesarean scar ectopic pregnancy, 33.3 % had blood loss ranging from 250 -500 ml, 25% had blood loss ranging from 500-750 ml and greater than 750 ml blood in 33.3 percentage. (Table 5) This also suggests that most of the cases deteriorate as the distances from the neighbouring talukas and our hospital is huge which results in good amount of haemoperitoneum until the patient is diagnosed and taken on table after making all necessary arrangements for blood transfusion. Therefore 30 percentage required post operative drain placement. There is statistical significance between pre op and post op haemoglobin which is due to immediate operative intervention and blood transfusion facility (Table 7).

Table 1: Age wise distribution of study participants

	Maximum Age	Minimum Age	Mean Age	Standard Deviation
Age	35	19	24.08	4.17

Table 2: Gravida status of study participants

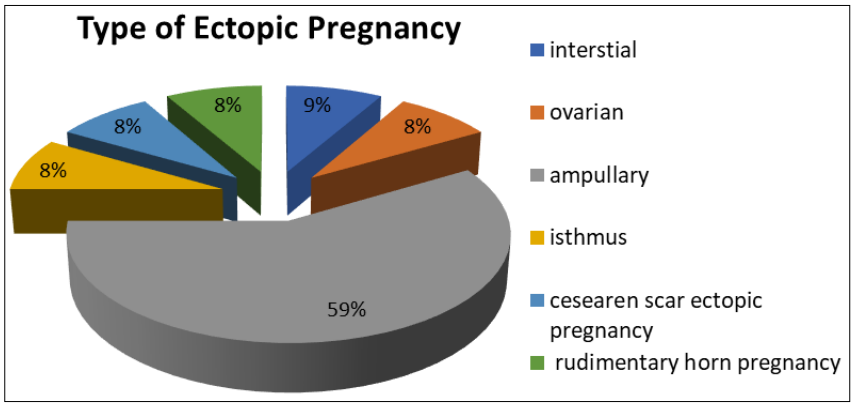
Gravida Status	Frequency	Percentage (%)
Primigravida	8	66.6
Second Gravida	1	8.3
Third Gravida	3	25
Total	12	100

Table 3: Months of amenorrhea at which the cases of ectopic pregnancy have presented in study participants

Months of ammenorrhea at presentation	Frequency	Percentage (%)
One	2	16.6
One and Half	6	50
Two	2	16.6
Two and half	2	16.6
Total	12	100

Table 4: Chief complain of presentation among study participants

Chief Complain of Presentation (Month's)	Frequency	Presentation (%)
Pain in iliac fossa	1	8.3
Abdominal pain	8	66.6
Abdominal pain and vomitting	2	16.6
Come for MTP	1	8.3
Total	12	100



Graph 1: Types of ectopic pregnancy encountered in this study

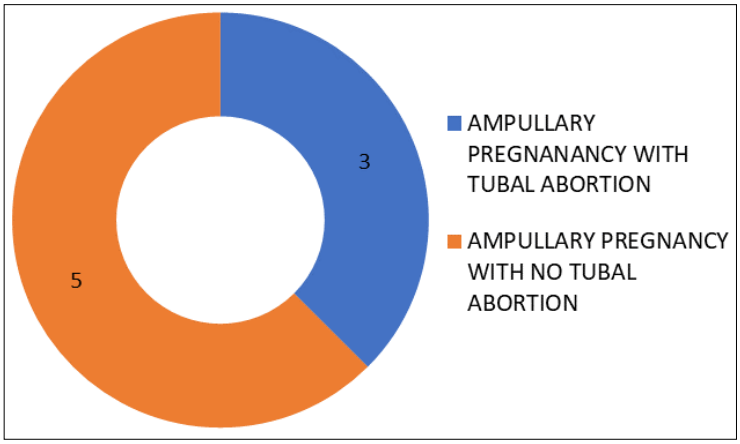
Table 5: Blood pressure and amount of blood loss in study participants

	Maximum	Minimum	Mean	Standard Deviation
Pulse	126	74	104.6	17.28326
Systolic Bp	130	80	103	13.37494
Diastolic Bp	90	50	67.400	10.79300

Amount of blood loss	Frequency	Percentage (%)
NIL	1	8.3
250-500	4	33.3
500-750	3	25
750 And Above	4	33.3
Total	12	100

Table 6: Intra operative drain placement in study participants

Intra Op drain placement	Frequency	Percentage
Yes	3	25
No	9	75
Total	12	100

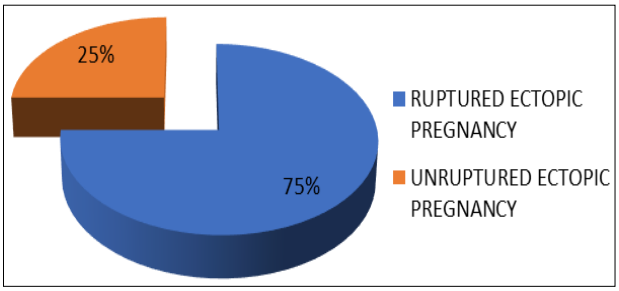


Graph 2: Percentage presenting with tubal abortion in ampulary pregnancy

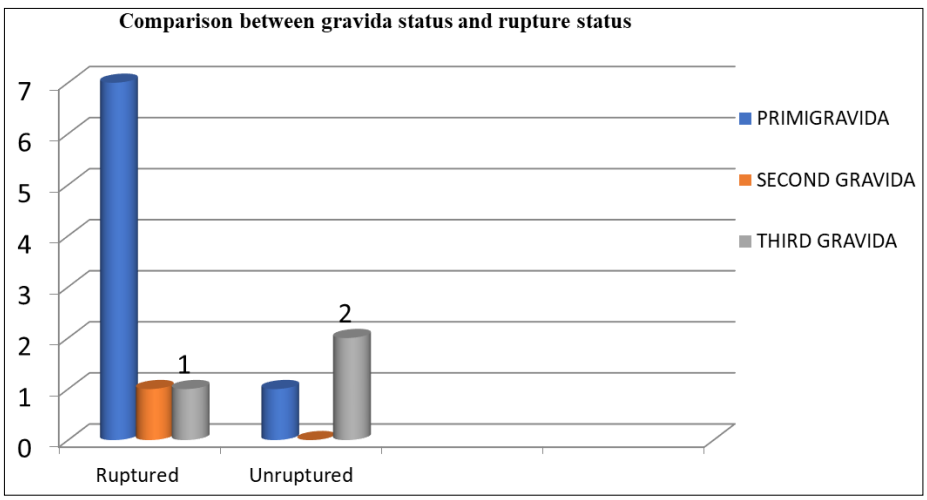
Table 7: Comparison of pre and post-operative haemoglobin among study participants

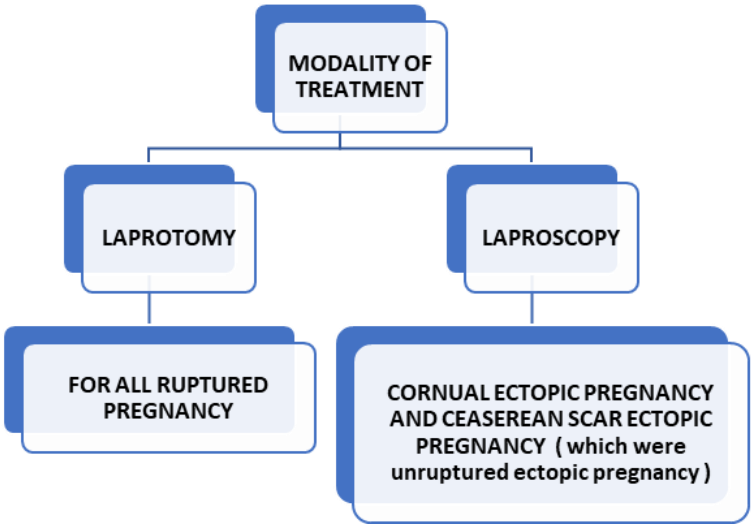
	Minimum	Maximum	Mean	Standard Devaition	P Value
PRE OP HB	4.25	12.05	8.31	2.64	0.002*
POST OP HB	9.45	12.60	11.55	1.02	

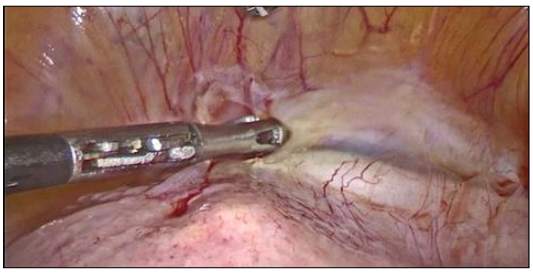
P value<0.05 indicates statistical significance



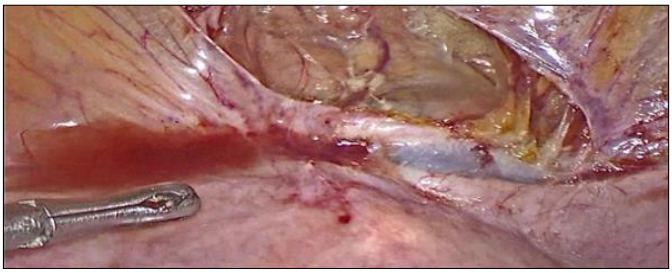
Graph 3: Distribution of ruptured and unruptured ectopic pregnancy



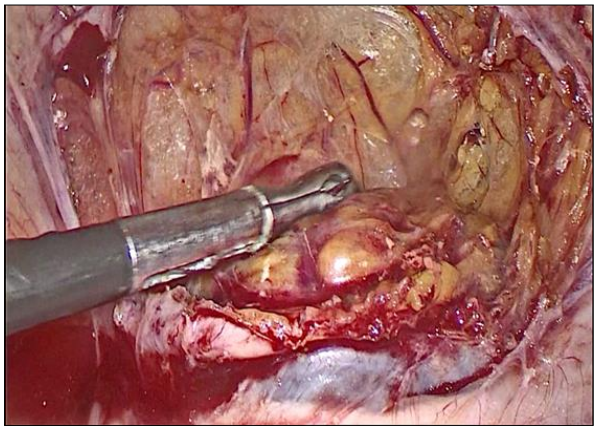




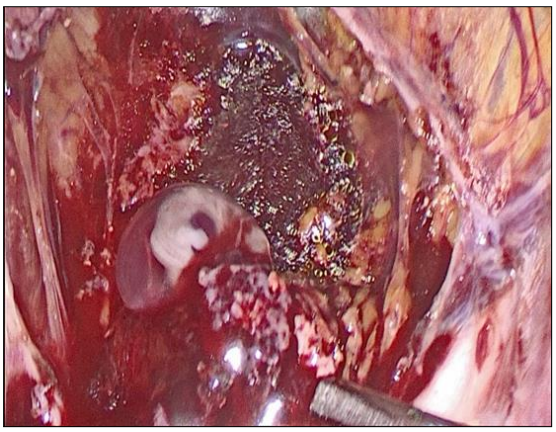
G Sac Over the uterine scar



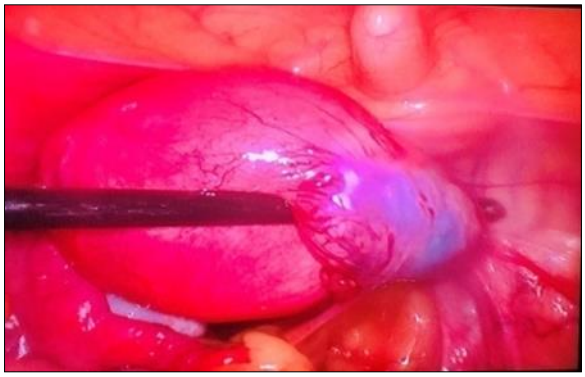
Sac opened

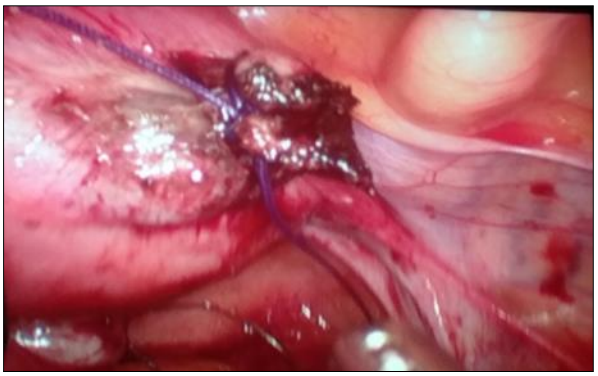


Products of conception removed



Embryo Seen





Right sided unruptured cornual ectopic pregnancy managed laparoscopically by excision and endo-suturing

Discussion

The surge of ectopic pregnancies has decreased over the last ten years in spite of that over the past decade its rate has dramatically increased. The incidence of EP with contraception is decreasing in present days while the incidence of EP without contraception is increasing in contrast [5]. Worldwide the

estimated prevalence of ectopic pregnancy is 1-2% [6]. There has been fourfold increase in the incidence over the couple of decades, whereas the mortality has been reduced to nearly 80% [7]. EP is an important cause of maternal mortality in addition to infertility, till date. Ectopic pregnancy still accounts for 4-10% of pregnancy related deaths along with the complications associated with the increased demand of blood transfusion [8].

All patients diagnosed of ectopic pregnancy at tertiary care centre- G.K. General The mean age calculated the mean age calculated is 24.08years of presentation with maximum age being 35 years and minimum age being 19 years [9-11].

In our study, majority (77.4%) had parity of 2 It was in contrast with study done by Prasanna *et al*. [13] where most of the patients were in the second gravida or more and some presented in shock due to rupture. A study [12] revealed that, a small number of nulliparous presented with tubal rupture compared to the majority with tubal rupture having greater parity.

In the present study 83.3% went for emergency laprotomy and 16.6% went for laproscopy. In all the patients who underwent laprotomy - Majority of them underwent Ipsilatearal Salpingectomy 77.77%, isolated oophorectomy 11.11% for ovarian ectopic, and ipsilateral salpingo oopherectony in 11.11 % when the ectopic mass is adhered with the ovary. None of the cases went for contralateral salpingectomy to prevent the recurrence of ectopic pregnancy as most of the patients were primigravida.

The aetiological risk factors in this study: 8.3% had conceived after ovulation inducing drugs, 25 % had history of PID, 8.3% had history of surgery for an adnexal mass, with remaining 58.3 % having no identifiable risk factors. this incidence of 30% of PID was the highest among the studies conducted by Prasanna *et al*. [13] Asuri SS *et al*. [14] (2016) and Rashmi A Gaddagi (2012) [15] Prevalence of primary infertility was 10% in one study in comparison to 17.7 % in the recent study and nearly 40% of the self-reported causes of infertility were due to ovulation problems [16]. The reporting of important risk factors to reproductive health clinics would of great help in determining infertility and EP that indirectly would suggest measures to combat them both [17].

Conclusion

The incidence of ectopic pregnancy is on a rise. Though the recent trend in the management of ectopic pregnancy is the use of conservative surgical or medical management, Radical surgery or salpingectomy was the treatment modality used in this study as 90 % cases were ruptured ectopic pregnancy where salvaging the tube is not possible. Therefore To reduce the frequency of ruptured ectopic pregnancy and improve functional and vital prognosis in our setup we need early women consultation in cases of amenorrhea or suspected pregnancy to determine its location by a qualified health agent. This will indeed prevent the rising incidence of infertility and improve the social implications on womanhood. Each obstetrician should be ectopic minded while dealing with any patient of pain in abdomen and bleeding per vaginum with history of amenorhea may or may not be there.

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