



RESEARCH ARTICLE

ECTOPIC PREGNANCY: A THREE YEAR RETROSPECTIVE STUDY IN TERTIARY CARE HOSPITAL

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ABSTRACT

Background A ruptured ectopic pregnancy is an emergency & remains the leading cause of pregnancy related maternal deaths in 1st trimester. The objective was to study the clinical profile of E.P. in a tertiary care hospital.

Methods It was a retrospective study conducted at Govt. Maternity Hospital anmakonda Warangal .Telangana State From 1st august 2012 to31st August.2015. a total of 60 cases were analyzed on clinical presentation , clinical features , investigations , operative findings & out come

Results A majority of women 58.3% were in the age group of 20-30 .yrs&76.6% were multy gravida.Risk factors were identified in 90% of casesAmenorrhoea 95% & pain abd.in96%were the most common coplaints .56 women 93.3% under went em.Laparotomy , 2pts3.3%received medical manage ment &2pts. 3.3% had laparoscopy.There is one 1.6% maternal death .Post operativ e morbidity like wound sepsis , febrile illness ,minor blood transfusion reactions in 15% of cases.

Conclusion E.P. Still remains one of the major causes of maternal morbidity &mortality in 1st trimester .Early diagnosis &referral in haemodynamically stable state along with use of minimal invasive surgery or medical management can change the prognosis of E.P.in developing countries.

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INTRODUCTION

- E.P. means any pregnancy that occurs out side the uterine cavity.
- Actually Ectopic is derived from Greek word, Ectopos means out of place or misplased .In E.P.blastocyst is implanted out side the endometrial lining of uterus. E.P. is a true emergency and accounts to 10% of direct cause for maternal mortality in 1st trimester. ⁽¹⁾ E.P. Incidence is 1 - 2 % in all pregnancies .Incidence of E.P. increased dramatically in the past 2decads. The rise can be attributed to increase in risk factors like P.I.D. ,increased use of I.U.C.D. , P.O.P. , O.C.P. , ART,increased maternal age & smoking , Endometriosis , but mostly due to improved diagnostic aids like Betahcg , USG,TVS .^(2,3)
- However may be the rise in incidence the maternal morbidity &motality makedly decreased since 1970 this is mainly due to improvement in early diagnosis by Beta hcg &T.V.S.allowing early intervention before massive intraperitoneal hemorrhage occurs & by using minimal invasive surgery &medical management..
- Any woman of reproductive age group presenting with pain abdomen with bleeding p/v, syncope or hypotension with or with out amenorrhoea with UPT +ve should be provisionally diagnosed an E.P. unless proved otherwise.
- The evaluation include urine & serum Betahcgc levels &TVS {USG} determines the presence or absence of intra

uterine gestational sac correlates with ser. Betahc, & USG allows E.P.to be identified before the develop ment of life threatening events. The importance of ectopic pregnancy is peculiar in our country because rather than join the global trend of early diagnosis &conservative management we are challenged by late presentation &rupture in more cases.

Aims&Objectives

- This study was under taken to study the incidence, clinical presentation , risk factors , management , outcome of all cases of E.P.presented to our center over a period of 3yrs.

METHODS

- This is a retrospective study conducted in Govt. Maternity hospital HNK. Warangal.From 1-8-2012 to 31- 8- 2015.All women who presented to our hospital with ectopic pregnancy were analyzed from the available documents. [Bed side records, history, O.T.notes &yearly census. The data collectedwas in respect to the following.

- Age
- Parity
- Chief complaints
- Period of amenorrhoea
- Any risk factors of E.P.
- Evidence of hypo volaemia
- Beta hcg status

- Mode of treatment
- Operative findings
- Out come of patients.

RESULTS

The total no of deliveries in our institution in the study period was 18560 & the total no of ectopics during this period is 60 .The incidence of ectopic pregnancy in our study is 0.32 % . In majority women who presented with ectopic pregnancy were in the age group of 20 – 30 yrs. [58.3%] and 46 [76.6%] had one previous pregnancy .On evaluation of the risk factors it was found that 54 women [90%]had one or the other risk factors, which included history of P.I.D. in 14 [23.35%] , previous abortion in 9 [15%] , previous tubectomy in 8 [13.3%] previous LSCS. In 8 [13.3%] Infertility treatment in 4 [6.6%] previous E.P. in 2 [3.3 %] I.U.C.D. IN 2 [3.3%] in 6 [10%] there is no identifiable cause.

Amenorrhoea 57 [95%] , Pain abdomen 58 [96.6%], along with vaginal bleeding 51[85%]were the usual complaints .Presence of tachycardia 46[76.6%], & abd. Tenderness 57[95%] were the most consistent clinical findings.UPTis positive in54 [90%] women.

- ❖ Emergency Laparotomy & peritoneal lavage done in 56[93.3%]
- ❖ Laparoscopy &peritoneal lavage in 2[3.3%]
- ❖ Medical management in 2 [3.3%]
- ❖ Majority of cases had rupture at ampullary area [55%] ,followed by rupture at fimbrial area .There were 5 cases of conual rupture ,4 cases of isthmic rupture &2 cases of LSCSscar rupture & 2cases of ovarian pregnancy.

Table 1 Distribution of Risk factors

| Risk factors | Number (n=54) | percentage (%) |
|-----------------------|---------------|----------------|
| PID | 14 | 23.3% |
| Abortions | 9 | 15% |
| Tubectomy | 8 | 13.3% |
| Previous LSCS | 8 | 13.3% |
| Infertility treatment | 4 | 6.6% |
| Pre. E.P. | 2 | 3.3% |
| IUCD use | 2 | 3.3% |
| Endometriosis | 2 | 3.3 % |
| re.appendicectomy | 2 | 3.3% |
| Rudimentary horn | 2 | 3.3% |
| hypo plastic uterus | 1 | 1.65% |

Table 2 Disrtibution according to mode of treatment

| Mode of treatment | Number(n=60) | Percentage (%) |
|--------------------|--------------|----------------|
| Laparotomy | 56 | 93.3% |
| Laparoscopy | 2 | 3.3% |
| Medical management | 2 | 3.3% |

Table 3 Distribution according to operative Findings

| Tubal rupture | 40 | 66.6% |
|------------------|----|-------|
| Tubal abortion | 7 | 11.6% |
| Unruptured | 7 | 11.6% |
| Ch.E.P. | 4 | 6.6% |
| LSCSscar rupture | 2 | 3.3% |

Table 4 site of ectopic pregnancy

| Site | Number | Percentage (%) |
|------------------|--------|----------------|
| AMPULLARY | 33 | 55% |
| Fimbrial | 7 | 11.6% |
| Cornual | 5 | 8.3% |
| Isthmus | 4 | 6.6% |
| Interstitial | 2 | 3.3% |
| Rudimentary horn | 2 | 3.3% |
| LSCS Scar | 2 | 3.3% |
| Ovarian | 2 | 3.3% |

Table 5 Hb. Level at the time of admission

| Haemoglobin | Number | Percentage |
|-------------|--------|------------|
| In grams | n=60 | (%) |
| < 4 grs | 14 | 23.3% |
| 4 - 6 grs | 22 | 36.6% |
| 7 – 10 grs | 22 | 36.6% |
| >10 grs | 2 | 3.3% |

Most of the patients presented with varying degrees of anaemia.Severe anaemia was seen in 36 pts very severe anaemia seen in 14 cases.Blood trans fusion was required in 53 pts .before ,during or after surgery.No trans fusion was required in 7 cases [table 5]. In our study one maternal death. The patient had two LSCS previously & with 2months amenorrhoea she took Mesoprostal Tabs. Prescribed by an unqualified person [RMP] &she had ruptured scar ectopic.She came to the hospital in shock her Hb is 2grs % & her Bl. Group is AB –ve .Hence we could not get adequate blood for transfusion. She had fever &on 1st P.O.D. She suddenly developed breath lessness, and sudden cardiac arrest. Hence we lost the patient.

Post operative morbidity in the form of febrile illness , wound infection , mild transfusion reactions , was seen in 15% of cases.

DISCUSSION

Ectopic pregnancy is high risk condition a nightmare for all gynecologists &reproductive challenge for a patient.There is a considerable regional variation in its incidence & globally its incidence is rising since past 3 decades .World wide E.P incidence is 0.25 2.0% .of all pregnancies^[4] .The incidence of E.P. In our study is 0.32% it correlates well with world wide E.P. Incidence. More cases were seen between age group 20 - 30 yrs There are different studies with similar results^[5,6] .Our study showed that 76.6% had one previous pregnancy.Some studies are showing increased risk of E.P.in nulliparous or primi parous which is conflicting with our results .Others have reported similar figures. No risk factor was found in only 6 cases & 54 pts had one or other risk factors. The commonest risk factor was P.I.D. 23.3% .Salpingitis & P.I.D. Increases the risk of E.P. 6 - 10 fold^[7]

Many studies support our results.^[2,3,9] Increased incidence of STI resulting in salpingitis and efficacy of antibiotics therapy in preventing total tubal occlusion after an episode of salpingitis are related to the increasing incidence of E.P.^[8] Chlamydia trachomatis [most common]& mycoplasma hominis infections increases the risk of E.P.With each episode causing 10% chance of ectopic pregnancy. Hence PID constitutes an important risk factor .

In our study previous abortions constituted another important risk factor 15%. Prior induced abortion significantly increases the risk of E.P.^[5,7] A study showed that the risk

of E.P. was higher in women who underwent medical method of termination as compared to surgical method of termination. They interpreted this association as a consequence of infection.[9] Previous spontaneous abortions increase the risk of E.P. Especially 3 or 4 spontaneous abortions.[9] Hence any type of abortion is a risk factor for E.P. incidence is 13.3% in our study in pts. With previous h/o tubectomy. Is correlating with other study Wolf et al reported 7.4% of E.P. occurred in previously sterilized women [1]. IUCD prevents intra uterine pregnancy effectively but tubal implantation to a lesser extent. In our study there were 2 cases of E.P. [3.3%] this is correlating with others. 4%. [1] In our study recurrent E.P. seen in 2 cases [3.3%] this is correlating with other studies.[2,13] But according to Shaista *et al* [12] found increased incidence 9% of recurrent E.P. According to Shaw [] incidence of recurrent E.P. is 15%

The incidence of E.P. is higher with infertility treatment compared to spontaneous pregnancies. The incidence of E.P. following infertility treatment is 6.6% in our study. According to Shaw the incidence of E.P. following infertility treatment is 7%. In other study the incidence is 12.98% [2]. Our incidence correlating with Shaw's incidence [1] As the incidence of LSCS increased in modern obstetrics the incidence of scar E.P. also increasing. According to Arup Kumar incidence of scar E.P. is < 1%. In our study there were 2 cases [3.3%] with scar E.P. this increased incidence is interpreted to increased caesarean section rate.

Most of the cases 76.6% presented with ruptured E.P. making the scenario clear that still in India most of the patients present late this may be due to failure of making early diagnosis at various levels of health care delivery system. As a result in our study majority of women [93.3%] had a laparotomy because of unstable condition & haemoperitoneum. Laparotomy & salpingectomy is the most common treatment in our study this is mainly because of presentation of patient late in night when seniors are not around, haemodynamically unstable condition & also due to lack of expertise in laparoscopy all led to increased incidence of laparotomy. This high incidence is correlating with other studies [2,4,13]. In our study 2 cases [3.3%] treated with Methotrexate & in 2 cases [3.3%] Laparoscopy was done

The tubes remained the commonest site of E.P. and ampulla being commonly affected [55%] in our study correlating with other study [1,12]. Ovarian E.P. is very rare 0.5 - 2% [1,12,14]. There were 2 cases of ruptured ovarian E.P. in our study. [3.3%]. Preoperative Hb level ranged from 2grs - 11grs% .36 cases [60%] had severe anaemia < 6grs%. Most of the pts 88% received blood transfusion preoperatively & postoperatively. One maternal death due to severe haemorrhage. In other study E.P. is responsible to 11.5% of maternal mortality. Haemorrhage is the commonest cause for mortality [1]. In our study a 3rd gravida para 2 with h/o 2 pre-LSCS with 2 MA took Mifeprostal tablets from an unqualified person [RMP] for termination of pregnancy, she had ruptured LSCS scar E.P. & she came to the hospital in shock with Hb 2grs% her Bl.

Group is AB-ve hence we could not get adequate amount of blood for transfusion more over pt. had fever & on 1st POD suddenly she developed breathlessness & sudden cardiac arrest, hence we lost the patient. Mortality in our study is 1.6%.

CONCLUSION

E.P. still remains the major cause for maternal mortality. Early diagnosis & referral in haemodynamically stable condition with the use of minimal invasive surgery & Medical management will reduce maternal mortality & morbidity in developing countries like India, at the same time helps in preserving the potential for future pregnancy. I also suggest that to give basic USG training for Under graduates during M.B.B.S. course & compulsory Laparoscopy training during Post graduate course for Gynecologists & providing USG machine at P.H.C. & establishing compulsory BLOOD BANK unit at all tertiary care maternity hospitals will help in reducing the maternal mortality & morbidity.

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