Study of Advances in Management of 68 Cases of Ectopic Gestation

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Abstract: Introduction: In recent years due to various reasons and better diagnostic facilities, increased incidence is noted in ectopic gestation. Main objective behind this study is to know the incidence of ectopic pregnancy in various age groups, to study its predisposing factors, its clinical presentation and to study the changing trends of modern obstetric management from radical surgeries to medical and laparoscopic management. Methods: A study of 68 cases of tubal ectopic pregnancy was carried out from August 2013 to July 2015 at a tertiary health care center. Patients managed with following modalities were selected for study. (1) Medical management (MXT) (2) Laparoscopic management: salpingostomy, salpingectomy (3) Laparotomy management: salpingostomy, segmental resection, fimbrial expression, salpingectomy. Results: Lower abdominal pain was most common presenting symptom of ectopic pregnancy in 88% cases. The classical triad of symptoms (amenorrhea, abdominal pain and vaginal bleeding) was present in only 42% cases. PID contributed 4% cases and previous abortion contributed 7% cases indicating these two as the common risk factors. Ampulla was the commonest site of pregnancy, in 63% cases. Salpingostomy was performed in this site. 10% cases were treated medically (methotrexate). These were the cases having unruptured ectopic pregnancy and ectopic mass <4cm. laparoscopy was done in 10% cases and open laparotomy in 82% cases. Conclusions: ectopic pregnancy is a treatable problem. Ultrasonography plays a central role in the diagnosis and management. Mode of therapy is determined by a combination of clinical symptoms, USG findings and serum βHCG values. Surgical management is still the cornerstone of management of ectopic pregnancy. But new scope of medical and laparoscopic management is also there.

Keywords: Advances Management Ectopic Pregnancy Medical Laparoscopic Laparotomy

1. Ectopic Pregnancy

When fertilized ovum gets implanted at site other than the normal position of uterine cavity it is known as Ectopic Gestation. It is a leading cause of maternal mortality and morbidity in first trimester and also cause reduced child bearing potential.

Increased incidence of Ectopic Gestation is due to –
- dramatic rise in PID(7-10 fold) –increased awareness and use of intrauterine devices - ART(Artificial Reproductive Therapy)

Objectives of the study are -study the incidence in various age groups -to study its predisposing factors -to study the different modes of clinical presentation -to study changing trends of modern management from radical surgical method to medical management and laparoscopic surgeries.

Course of Ectopic Pregnancy: Spontaneous resolution -tubal abortion -pelvic hematocoele -hematosalpinx - tubal rupture - rupture followed by secondary abdominal pregnancy.

Diagnostic Modalities for Ectopic Pregnancy
1) Serial B-HCG titre -66% rise in B-HCG titre is seen at 2 days in normal intrauterine pregnancy(IUP). -discriminating zone is 1500IU/ml of B-HCG. At this level IUP must be located. -there is a decrease of 21% -35% of B-HCG levels if spontaneous abortion occurs. Slower decease or slow increase suggests Ectopic Gestation -in 17% patients with ectopic pregnancy B-HCG doubling time is normal.
2) Progesterone level -poor diagnostic value ->25ng/ml suggests normal IUP. -<5ng/ml suggests abortion. -ectopic pregnancy 5-25ng/ml -limitations include patients undergoing infertility treatment via IVF.
3) Features seen on TVS(Transvaginal ultrasound) - Ectopic cardiac activity-> diagnosis is 100% -ectopic gestational sac - strong evidence -ectopic mass & fluid in POD -> moderately strong evidence
4) Colour Doppler - Ring of Fire Sign seen around a cold uterus is diagnostic of ectopic gestation on colour Doppler ultrasound.
5) Laparoscopy is rarely used for diagnosis. Diagnostic scopy can be converted to therapeutic scopy and treatment can be achieved simultaneously.

2. Management

Medical management Selection criteria–mass <3.5 cm -B-HCG <4000mIU/ml <- 6 weeks gestational age - absent cardiac activity - no hemoperitoneum -hemodynamically stable patient - well compliant and well counselled patient. Methotrexate regimen-single dose ~ 50mg/m2 IM -βHCG on day 4 and 7 should decrease by 15% of the initial level -if it persists on day 7, repeat the dose (max 4 doses) -if it decreases do weekly βHCG till Ectopic Pregnancy resolves(<10mIU).

3. Materials and Methods

The study includes a study of 68 cases of Ectopic Pregnancy in General Hospital over a period of Two Years from August 2013 to July 2015 in Department of Obstetrics and Gynecology. Main AIMs to study Management of Ectopic Gestation by different modalities including Medical management and Surgical management by Laparoscopy and Laparotomy.

4. Observation and Discussion

INCIDENCE: ATVSGH Total number of pregnancy 22084 Total number of ectopic 68
Incidence of ectopic preg. (In pregnancy) 1 : 320
Total no. of delivery 17340
Total no. of delivery (emergency) 5598
Total no. of delivery (register) 11642
Total no. of vaginal 29
Total no. of abortion 1593
Total no. of bleed PV 1045 (44.6%)
The above table 7 shows distribution of cases according to mode of treatment, site of ectopic pregnancy and fate of ectopic pregnancy

5. Discussion

The proportion of ectopic pregnancy was 1:320 at our institute. It is commonly found in young age group. In our study 71% women were between the age group of 21-30 years. Majority of women 30% were nulliparous. As per the study of Priti et al, 75% of the women were between the age group of 21-30 years and 36.7% women were nulliparous.

In our study, the risk factors mainly associated with women with ectopic pregnancy were history of PID, in 21% women, abortion in 7% women and infertility in 7% women. PID being the most common etiological factor and by far the most preventable, efforts for early diagnosis and prompt treatment must be developed in OPD cases itself. The Gharoro et al study in fact shows that PID was associated with 41% and previous abortion was associated with 63% of women with ectopic pregnancy.

In our study, two women had previous history of ectopic pregnancy. Out of which one woman had undergone partial salpingectomy of right tube and later had ruptured ectopic pregnancy of the isthmic part of the same tube. The other women had been operated for left sided ectopic pregnancy and later operated for right ruptured ampullary ectopic pregnancy in the form of right salpingectomy. In a study by Bennetot et al, the incidence of recurrence of ectopic pregnancy is 19% irrespective of treatment given for original ectopic pregnancy. In our study we had one patient with scar ectopic pregnancy of 6 weeks gestation.

The presenting symptoms of these women were most commonly lower abdominal pain 88% and amenorrhoea found in 69% women. In the study of Gharoro et al lower abdominal pain was present in 83.6% and amenorrhoea in 77.6% women. Fainting was experienced by 8(14.8%) women, which was due to significant intraperitoneal haemorrhage. Abdominal tenderness was present in 60(86%) women and cervical motion tenderness was present in 56(81%) women which is comparable to Majhiet et al, in which cervical motion tenderness was present in 82.2% women.

Also a high degree of clinical suspicion of ectopic with any of the risk factors must be considered ectopic unless proved otherwise, and must be considered ectopic unless proved otherwise, and must be monitored with serial βHCG estimation and ultrasonography until localization of pregnancy is confirmed.

In the present study medical management was done in women having unruptured ectopic pregnancy and mass of ectopic gestation <4cm.in our study success rate of medical treatment was 72% as laparotomy was required in two women out of 7 women who were managed by medical treatment.

Of those women who were treated either by laparoscopy or by laparotomy, salpingectomy is performed in 58%, partial salpingectomy in 11% and salpingotomy in 1%. In women with ruptured ectopic pregnancy, often the tube was shattered and bleeding or the ectopic mass was large. In such women, conservative surgery was not always possible and radical surgery was performed. Conservative surgery is not followed by aof an increased risk of repeat ectopic pregnancy should be taken into account when deciding on operative procedure.

In our study, laparoscopy was performed in 10% women. Laparoscopic surgery has its own advantages over laparotomy of being minimally invasive, early post operative recovery and early ambulation of patient. Ruptured ectopic does not necessarily warrant a laparotomy. Laparoscopy can be performed if bleeding is less and patient is haemodynamically stable.

In our study, successful management of ectopic pregnancy by laparotomy was higher in 82.6% women compared to laparoscopies that were successful in 10% women. This was due to the fact that before reaching to our tertiary care hospital, most of the women seek help at primary, secondary, or private health care centres or they report late. This leads to loss of precious time and women were brought with ruptured ectopic pregnancy with stage 2 and stage 3 shock with large haemoperitoneum requiring emergency laparotomy and transfusion of blood and blood products.

6. Conclusion

Analysis of 68 cases of ectopic pregnancy during the last two and half years is presented here. Ectopic pregnancy still remains potentially most critical gynecological emergency. Incidence of ectopic pregnancy is rising due to increased incidence of PID, Tubal surgery, ART. In diagnosis of ectopic pregnancy, abdominal pain and tenderness remain the most constant features along with amenorrhea. Due to revolution in technology, advanced diagnostic technique like USG, β hCG assessment laparoscopy results in early detections even in unruptured state. Hemodynamic stability is essential for conservative management of the patient. The mortality and morbidity associated with ectopic pregnancy has reduced dramatically over last decades due to -Earlier diagnosis even in unruptured form. -Improved resuscitative measures and availability of 24 hours blood banks. -Good operative techniques and facilities. -Modern anesthetic agents and techniques. -Better antibiotic coverage. So, the mortality associated with condition is zero in my case study.

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