Volume : 4 | Issue : 4 | April 2015 • ISSN No 2277 - 8179

Research Paper

"A Shift in Scenario of Ectopic Pregnancy Towards Medical Management"

Medical Science

KEYWORDS : Ectopic Pregnancy, Pseudo Ectopic, Medical Disease now/surgical disease then.

Dr. Namita Agarwal — Associate Professor Department of Gyn. & Obs. Shri Ram Murti Smarak Institute of Medical Sciences Ram Murti Puram, 13 Km. Bareilly-Nainital Road, Bhojipura, Bareilly-243030

Dr. Brijesh Kumar Agarwal — Associate Professor Dept. of Surgery (Urology) Shri Ram Murti Smarak Institute of Medical Sciences Ram Murti Puram, 13 Km. Bareilly-Nainital Road, Bhojipura, Bareilly-243030

ABSTRACT

A Retrospective study done to find out the changes in the trend in incidence of Ectopic pregnancies and their aetiologies. How early presentation, early diagnosis, knowledge of conditions mimicking ectopic pregnancies and their treatment plan whether surgical or medical would determine the final out come in each individual case. We studied 312 cases of deliveries during Jan. 2010 to Dec. 2011. We did not include those cases who visited once only. Out of these 312, we found six cases of ectopic pregnancy. All cases were analysed carefully. One case turned out to be a ruptured corpus luteal cyst mimicking ectopic pregnancy. All cases presented very early either wanting MTP or due to increased awareness. Three cases had emergency contraceptive failure and two had been on infertility treatment. Three cases were managed medically. Laparoscopic surgery was done in rest of three cases. No case required Laparotomy. Though our study is very limited, but it reflects the recent scenario of ectopic pregnancy.

INTRODUCTION

Pregnancy which has implanted elsewhere other than the uterine endometrium is called as ectopic pregnancy. In a study done in U.S., over 95% ectopic pregnancies occurred in the fallopian tube(1). Identifying the location is very challenging and is done by Sonography.

Ectopic pregnancy is the leading cause of pregnancy related first timester deaths among women in the United States. Ectopic Pregnancies represent approximately 2% of all pregnancies (2, 3). While the incidence of ectopic pregnancy has continued to increase, the case fatality rate has dropped from 69% in 1876 (4) to 0.35% in 1970 and to 0.05% in 1986.

There is good evidence to support the following risk factors for developing ectopic pregnancy: History of previous ectopic pregnancy, previous Tubal Surgery, Tubal Ligation Failures, Tubal Pathology, Inutero diethylstilbestrol Exposure & current use of progestational IUD. (5). The incidence of Ectopic pregnancies has greatly increased over the years due to increase in Pelvic Inflammatory Diseases, Artificial Reproductive Techniques, Tubal surgeries, current use of intrauterine Diseases, Artificial Reproductive Techniques, Tubal surgeries, current use of intrauterine devices, use of Progesterone only pills and emergency contraceptive pills. Many of these factors likely ct through a common pathway of tubal disease either infectious pathology, structural defects or functional disorders.

Management will depend upon the time of presentation, diagnosis as early as possible, availability of clinical expertise and infrastructure. These all factors will affect the final outcome & overall prognosis in these cases. Availability of Serum Beta HCG ASSAY and Transvaginal sonography has improved the diagnostic capability at an early stage. availability and use of endoscopic technology and medical treatment has revolunised the outcome in ectopic pregnancies. Medical treatment in very early diagnosed cases has reduced the incidence of surgical intervention in ectopic pregnancy treatment. Ectopic Pregnancies carry zero prognosis for the baby and can be a cause of maternal infertility, morbidity & mortality. This creates a tough situation for the clinician. Before 1980 treatment for Ectopic Pregnancy was surgical. After that various agents specially Methotrexate is being used successfully for the management of ectopic pregnancies. Previous surgery of Laparotomy & Salpingectomy has been replaced by Laparoscopic minimally invasive surgical procedures. Surgery, now per se is indicated in a very few situations.

THE STUDY

A retrospective study was done at our Hospital from Jan 2010 to Dec. 2011. Total number of deliveries during this period was 312. We did not include those case, who visited only once. Out of which, 6 cases were of ectopic pregnancies.

The cases were studied to see the cause of ectopic gestation, presentation, diagnosis and management. One case was thought to be Ectopic Pregnancy but turned out to be a case or ruptured corpus luteal cyst.

ANALYSIS

CASE-1 EARLY DIAGNOSIS ENABLING MEDICAL MANAGEMENT

A young female Mrs. R, P1+2 presented with early pregnancy and requesting for MTP. She was overdue by 6 days and asymptomatic. Her general, abdominal and pelvic examination were normal. She had done her pregnancy test at home, which was positive. I planned for medical MTP. Her Hb was 11.5%. She was given Mifepristone and Misoprostol sequentially and was asked to report after 3 days. She had mere spotting P/V. She was given another dose of Miscoprostol 200 mcg twice daily for two days and was told to come after this. this also failed to induce the bleeding. Thinking it to be a case of ectopic gestation, she was advised for Serum beta HCG and TVS. Her BETA HCG was 1250 miu/ml and uterus was bulky with no gestational sac seen in uterine or extra uterine area. She was still asymptomatic. I diagnosed her was a case of ectopic gestation. She was hospitalized and after RFT, LFT & CBC, Injection Methotrexate 75 mg i/m was given. She remained well and was discharged after 48 hours. In follow up she remained well and her beta HCG came to 15. She started bleeding P/V and her subsequent cycles remained regular. This case would have become serious and would have undergone Laparotomy if she wanted to continue the pregnancy thinking it to be a normal uterine pregnancy. The cause was emergency contraception failure.

Two more case had similar presentation with weekly positive pregnancy test and managed on the same line as Case No. 1

CASE-4 RUPTURED CORPUS LUTEAL CYST CAN MIMIC RUPTURED ECTOPIC

Mrs.S, P1+2 presented to us with H/O missed period and overdue by 10 days. Her pregnancy test was positive. She was having mild pain in right lower abdomen. Her ultrasonography revealed no gestational sac in the uterus and there was a right adenexal

Volume : 4 | Issue : 4 | April 2015 • ISSN No 2277 - 8179

mass. We admitted ehr thinking it to be an? Ectopic pregnancy. We sent her blood for serum BETA HCG. She started having increased pain on the right side of lower abdomen and fall in blood pressure. Bed side sonography revealed mild fluid in POD. Provisional diagnosis was acute presentation of ectopic gestation. Till this time we had not received the BETA HCG report. We did all preoperative investigations and did laparoscopic excision of adenexal mass, which was bleeding. Histopathology was rupturede corpus luteal cyst with no evidence of chorionic villi. Her BETA HCG report came as 18,500 miu/ml. On repeat sonography, there was a uterine pregnancy. We did MTP because she had so many medicines which could have damaged the foetus.

CASE-5 ECTOPIC AS ONLY MILD FLUID IN POD WITH NORMAL TUBES AND UTERUS

Mrs. P, Aged 27 years, A Nulliparous patient presented to us with one missed period and little discomfort in lower abdomen. She was on infertility treatment and overdue by 4 days. Her pregnancy test was weekly positive. She was kept on folic acid, vaginal progesterone & injectable HCG 5000 iu every three days. Her serum BETA HCG and progesterone were sent. She was not given any analgesic. Sonography was normal except very mild fluid in pouch of douglas and no intrauterine gestational sac. Taking it as early pregnancy and as pain severity was not much, she was kept under strict supervision. We told the patient that there could be a possibility of ectopic gestation. Her serum progesterone was 18.5 ng//ml and HCG was 8550 miu/ml. On sixth day, pain intensity has increased and blood pressure started falling. We were confirmed that we are dealing with ectopic pregnancy which has ruptured. We hospitalized the patient for laparoscopic operation. On laparoscoy, we found ruptured ectopic in left tube. We did left salpingectomy. Patient did well in post operative period.

Serial TVS and HCG assay could have enabled an earlier diagnosis and aboided salpingectomy.

CASE-6

Mrs. F, a Nulliparous patient, aged 29 years presented with acute Abominal pain with diagnosed early pregnancy on urine test following amenorrhoe of 45 days. She was P0+1 with a previous spontaneous abortion 2 years back. She was taking treatment for infertility and had taken a course of antitubercular treatment. Her vital signs were stable. On examination her abdomen was tender on right side. TVS revealed a mixed echogenic mass in the right adenexa. Uterus was normal. There was fluid in POD. After full work up we did laparoscopic exploration. There were adhesions in the peritoneum. After release of adhesions, we reached up to the tube. There was a big bleeding mass in the right tube. We did excision of the mass and right tube, Histology reported chorionic villi and trophoblastic tissue in the specimen. Patient did well and was discharged next day.

DISCUSSION

The incidence of ectopic pregnancy in U.S.A. has been steadily increasing since the past five decades. The Centres for disease control reported a four fold increase in incidence between 1970 and 1983 (6). Norway had an epidemic rise in ectopic pregnancies from 12.5 to 18 per 1000 reported pregnancies during 1979 to 1993 (7). Countries like France and Sweden are reporting stabilization of incidence of Ectopic pregnancies (8). U.K. also has a constant rate of 11.5% of all maternal deaths since 1972 (9). Mitra et al reported incidence of ectopic as 1 in 219 deliveries from 1975 to 1978 (10). Our study also correlates with other studies i.e. 6 cases of ectopic pregnancies in 312 deliveries.

Various aetiologies has been described for Ectopic pregnancies. Infertility is the single most important aetiological factor contributing to Ectopic Pregnancies. Cause in these cases can be bubal disease, Artifical Reproductive Techniques or Luteal Phase deficiency. Previous History of MTP in is an important cause in India due to the higher incidence of infective tubal pathology here as compared to the Western countries (11). There is an increased risk for Ectopic pregnancy in current users of IUD (12). H/O previous Ectopic Pregnancy was an important Risk Factor (13). Reconstructive Tubal Surgeries has also been shown to be a high risk factor for ectopic pregnancy. Tubal Ligation failures cases are at high risk for Ectopic Pregnancy. Previous Genital tract infections is the major cause of Tubal damage and associated with high incidence of ectopic pregnancy. Previous non-tubal pelvic surgeries confer a potential risk for ectopic pregnancy. DES Exposure in Utero has been shown to confer 9 fold increased risk for ectopic pregnancy. Emergency contraceptive failures are now becoming an important risk factor for ectopic pregnancy (14). The other factors are smoking, young age, multiple sex partners & vaginal douching. In our study, the commonest cause was use of emergency contraceptives & H/O Infertility treatment.

There are various conditions, which can mimic EP clinically. With a detailed history, examination and TVS, various conditions can be diagnosed and treated accordingly. In this study we have presented one case of ruptured Corpus luteal cyst.

Ectopic Pregnancy has evolved into a medical disease over the past few years. The first case report of methotrexate for the treatment of Ectopic Pregnancy came in 1982. Now a days, the cases of ectopic pregnancies are commonly presenting very early either due to wanting termination, increased availability of medical care & awareness amongst individuals regarding early management of trival symptoms. These are the patients for medical treatment. Single dose methotrexate 50 mg/m^2 given intramuscular is sufficient in most cases (15). The treating clinician should be aware of indications, contraindications & side effects of Methotrexate. Best success is seen when serum BETA HCG is less than 5000 miu/ml. Success rate comes down with rising BETA HCG levels, presence of Cardiac Activity & high progesterone levels.

Laparoscopic management of Ectopic pregnancy is now well established. Laparoscopy is associated with a faster recovery, shorter hospitalization, reduced overall cost and of course lesser pain, bleeding and adhesion formation. Most of the patients who cannot be managed medically can be handled laparoscopically. Indications for laparotomy in ectopic pregnancy are haemodynamically unstable patients, extensive intraabdominal adhesions and serum HCG more than 15000 miu/ml and if laparoscopic facilities are not available. surgery can be salpingectomy or salpingostomy with both the approaches. Salpingostomy is preferred where tubal salvage is desirable.

CONCLUSION

Incidence of ectopic pregnancies is on the rise and or stationary but not declining. Mortality and Morbidity from Ectopic Pregnancy has dropped precipitously because of diagnostic and management techniques. Early presentation, suspected ectopic pregnancy diagnosis, transvaginal sonography, Serum BETA HCG estimation, knowledge of medical treatment and availability of expert laparoscopic operations has increased the incidence of Ectopic Pregnancies but markedly decreased its mortality and morbidity. Ectopic pregnancy remains a significant Gynaecological emergency and delay in diagnosis or treatment can be catastrophic. Diagnosis rests on having a high index of suspicion for women with symptomatic complaints in the first trimester or women without complaints but with high risk factors, such as infertility, H/O emergency contraception, any tubal surgery, H/O Ectopic Pregnancy, IUD in situ or Pregnancy after A.R.T. choice of the best treatment medical or surgical is based on patient's general condition, factors related to ectopic like size, evidence of

rupture, or rate of HCG rise and patient's wish sometimes.

REFERENCE

1. Bouyer J, Coste J, Fernandez H, et al. Sites of ectopic pregnancy: a 10 year population-based study of 1800 cases. Hum Reprod 2002; 187(12) : 3224-30. | 2, Ectopic pregnancy – United States, 1990-1992. MMWR Morb Mortal Wkly rep 1005; 44(3): 46-8. | 3. Grimes DA. The morbidity and mortality of pregnancy: still risky business. Am J Obstet Gynecol 1994; 170(5 Pt 2) : 1489-94. | 4. Classic pages in obstetircs and gynecology. John Stubbs Parry. Extra-uterine pregnancy: its causes, species, pathological anatomy, clinical history, diagnosis, prognosis, and treatment. Am J Obstet Gynaecol 1974; 118(1) : 136. | 5. Ankum WM, Mol BW, Van der Veen F, et al. risk factors for ectopic pregnancy: a meta-analysis. Fertil Steril 1996; 65(6) : 1093-9. | 6. Centers for disease control. Ectopic pregnancy in the USA: 1970-1983, CDC surveillance summaries. MMWR 1986; 35: 29. | 7. Storeide O, Vehdmen M, Eide M, Bergsio P, Sandvei R – The incidence of EP in Hordaland county, Norway. Obstet Gynecol 1995; 91 : 287-92. | 8. Valerie B – Cross sectional epidemiological study of EP in a country in France. Fertil Steril 2002; 48: 882-92. | 9. Department of Health and Social Security. Report on confidential enquiries into material deaths in the United Kingdom 1985-87. London: HMSO. 1990. | 10. Mitra S, Sikdar K, Mondal GS – A review of ectopic pregnancy. J. Obstet Gynaecol India 1980: 1:24-7. | 11. Levin AA, Schoebaum SC, Shoebaum SC, Stubblefield PG – Ectopic pregnancy and prior induced abortion. Am J Public Health 1992; 72 : 253-63. | 12. Rossing MA, Daling JR, Voigt LF, et al. Current use of an intrauterine device and risk of tubal pregnancy. Epidemiology 1993; 4(3): 252-8. | 13. Peterson HB, Xia Z, Hughes JM, et al. The risk of ectopic pregnancy after tubal sterilization. U.S. collaborative Review of Sterilization Working Group. N Engl J Med 1997; 336 (11) : 762-7. | 14. Mol BW, Ankum WM, Bossuyt PM, et al. Contraception and he risk of ectopic pregnancy: a meta-analysis. Contraception 1995; 542 (6) : 337-41. | 15. Tanaka T, Hayashi H, Kutsuzawa T, et al. Treatment of interstitial ectopic pregnancy with methotrexate: report of a successful case. Fertil Steril 1982; 37(6) 851-2).