ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 8, Issue, 08, pp.36301-36302, August, 2016

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

ECTOPIC PREGNANCY-THE CONSERVATIVE SURGICAL APPROACH IN MODERN ERA

***Mahawar, P., Manchanda, R., Nagraj, V. and Bhargava, N.**

Gynae Endoscopy, Gyane Endoscopic Unit, PSRI Hospital, New Delhi

ARTICLE INFO

Article History:
Received 08th May, 2016
Received in revised form
25th June, 2016
Accepted 16th July, 2016
Published online 20th August, 2016

Key words:

Ectopic pregnancy,
Laparoscopy,
Salpingostomy.

ABSTRACT

Ectopic pregnancy is defined as gestation in which implantation is outside uterine cavity. With the earlier and more accurate diagnosis of ectopic pregnancy based on beta subunit pregnancy test and the use of transvaginal ultrasound and laparoscopy, the percentage of diagnosed unruptured pregnancy is rapidly increasing. However treatment of ectopic pregnancy has also evolved from emergency laparotomy to conservative management either medical or surgical. Linear salpingostomy is one of such conservative surgical method in management of ectopic pregnancy. Here we present a case of 31 year female, who came to us with history of 2 month amenorrhea and vaginal bleeding. She was diagnosed as left sided unruptured ectopic pregnancy. She had also received 2 doses of inj methotrexate, despite which her sac size increased. She was operated on 28.11.2015, Diagnostic laparoscopy and linear salpingostomy with D&C was done. Post operatively the patient recovered well. Patient again reported to us with single live intrauterine gestation of 6 weeks 3 days on 11.06.16. We highlight that linear salpingostomy is therefore a good option in unruptured ectopic pregnancies in order to preserve reproductive function.

Citation: Mahawar, P., Manchanda, R., Nagraj, V. and Bhargava, N. 2016. "Ectopic pregnancy-The conservative surgical approach in modern era *International Journal of Current Research*, 8, (08), 36301-36302.

INTRODUCTION

Ectopic pregnancy is defined as implantation of sac outside uterine cavity. The incidence of ectopic pregnancy is 1-2 % of all pregnancies. In 1920, laparotomy and ligation of bleeding vessels with removal of the affected tube was the standard of care but in 1970 operative laparoscopy and salpingostomy replaced laparotomy and salpingectomy. In 1980s medical therapy of ectopic management was introduced. The linear salpingostomy along the antimesentric border to remove the product of conception is the procedure of choice for unruptured ectopic pregnancy in the ampullary portion of the tube. In this technique with the knife or needle electrode an incision of 1-2 cms on antimesentric border of tube is made. Aquadissector is inserted deep in the incision, fluid from the aquadissector under pressure dissects and dislodges the ectopic pregnancy. Bed is irrigated well. Bleeding may be controlled by applying pressure with grasping forcep for 5 minute. The arterial bleeding may require pinpoint bipolar dessication. After conservative surgery of ectopic gestation, weekly monitoring of beta HCG levels is necessary until the level is zero to ensure that treatment is complete. If the fall in serum beta HCG is less than 20% every 72 hour, it represents incomplete treatment. Some authors suggest administration of a prophylactic dose of methotrexate after conservative surgery to reduce the risk of persistent ectopic pregnancy.

****Corresponding author: Mahawar, P.***
Gynae Endoscopy, Gyane Endoscopic Unit, PSRI Hospital, New Delhi

Case

A 31 year old nullipara reported with history of amenorrhea since 2 month, vaginal bleeding on and off and pain abdomen since a week. She had visited a local doctor where she was diagnosed as left sided unruptured ectopic pregnancy. She was treated with 2 doses of inj methotrexate, but her sac size had increased despite of this treatment. On examination she was hemodynamically stable; there was mild tenderness in left iliac fossa. Her routine investigations were sent and she was posted for diagnostic and operative laparoscopy. Under general anaesthesia patient was put in lithotomy position, primary and accessory ports were made and pneumoperitoneum created. There were subdiaphragmatic adhesions suggestive of fitz hugh Curtis syndrome, omentum was adherent to anterior lateral abdominal wall. Uterus was normal size, right sided tubes and ovaries were normal. There was 2.5*2.5 cm unruptured ectopic pregnancy in the left ampullary region of the tube. Linear salpingostomy was done. Gestational sac removed and hemostasis checked. Patient recovered well postoperatively and she was discharged on next day. At the time of discharge inj methotrexate 50 mg IM was given. She was followed up by

serial serum beta HCG. This patient reported us again after 6 months with history of amenorrhea one and half month. She was advised USG which showed single live intrauterine pregnancy of 6 weeks 03 days.

DISCUSSION

During the past 3 decades the incidence of ectopic pregnancy has increased exponentially from 20000 to 70000 cases per year (Ectopic Pregnancy-United States, 1995; Tait, 1884; Goldner *et al*., 1993; NCHS, 1994; Marchbanks *et al*., 1988) while the case fatality rate has declined significantly. These days ectopic pregnancies are being diagnosed before rupture due to higher resolution of ultrasound, increased sensitivity of radioimmunoassay for HCG and increased vigilance by clinician. With the advancement in microsurgical technique, the more conservative approach in management of ectopic pregnancy has been introduced. The conservative managment may consist of linear salpingostomy, milking the ectopic out of fimbrial end or segmental resection of tube followed by reanastomosis. The analysis of different studies (Bruhat *et al*., 1980; Vermesh *et al*., 1989; Brumsted *et al*., 1988) conclude that laparoscopic management of ectopic pregnancy results in less post operative adhesions, significantly less blood loss, reduced post operative analgesia, and reduced cost. Consequently laparoscopy is the preferred option in surgical management of ectopic pregnancy. However in critically ill patient, laparotomy may continue to have a role because of its swiftness to access the abdomen and securing bleeding vessel. Patient with ectopic pregnancy in ampulla of tube are the ideal candidate for salpingostomy. Linear salpingostiomy can be tried out but not very successful in management of a pregnancy lodged in isthmus because lumen is so small that it erodes muscularis. The prognosis of patient with an ectopic pregnancy is good for those with an early diagnosis. The earlier the diagnosis is made and treatment is administered higher the likelihood of subsequent fertility. Retrospective cohort study of 651 women who underwent operation for first ectopic pregnancy, Baangsgaard *et al* reported a fertility rate of 88% after conservative surgery (salpingostomy) versus only 66% after radical surgery (salpingectomy).They also found no difference in recurrence for ectopic pregnancy in two groups. (Bangsgaard *et al*., 2003) Prophylactic methotrexate has been successfully tried by some clinician. Graczykowski and Mishell successfully used prophylactic methotrexate following resection of ectopic by salpingostomy. The rate of persistent ectopic pregnancy reduced from 14.5% in the control group to 1.9% instudy group. (Graczykowski and Mishell, 1997) In the presented case patient was diagnosed as unruptured left sided ectopic pregnancy and she was managed by laparoscopic linear salpingostomy. Prophylactic inj methotrexate 50 mg IM was given. She recovered well postoperatively and she was followed up by serial beta HCG. She conceived again within 6 month of this conservative surgery and corpus luteum was present in left ovary. It shows that left side of tube was used for migration of ovum. We also noticed the subdiaphragmatic adhesions suggestive of Fitz Hugh Curtis Syndrome and omental adhesions which show that PID might be suggestive of the etiology in this case. Hence we also have the added advantage of diagnosing the coexisting pathology with help of minimal invasive surgery.

Conclusion

The laparoscopy and conservative surgery should be the standard of care in management of ectopic pregnancy. In modern era when incidence of ectopic pregnancy is increasing due to parallel increase in etiological factor like sexually transmitted diseases and assisted reproductive techniques and with the help of modern advances in minimal invasive surgeries we can reduce the morbidity and mortality associated with ectopic pregnancy and offer the couple a more optimistic outlook for subsequent reproductive potential.

Funding: None

Conflict of interest: None

Ethical approval: Not required

REFERENCES

Bangsgaard N, Lund CO, Ottensen B, Nilas L. 2003. Improved fertility following conservative surgical management of ectopic pregnancy. *BJOG*, Aug 110(8)765-70

Bruhat MA, Mahnes H, Mage G, Canis M, Bruhat MA. 1980. Treatment of ectopic pregnancy by means of laparoscopy. *Fertil Steril*., 33:411-4

Brumstead J, Kessler C Gibson C Nakajima S, Riddick DH, Gibson M, 1988. A comparison of laparoscopy and laparotomy for the treatment of ectopic pregnancy. *Obstet Gynecol*., 71:889-92

Ectopic Pregnancy-United States, 1990-1992. MMWR-Morbidity and Mortality. Weekly Report 1995; 27; 44(3):46-8.

Goldner TE, Lawson HW, Xia Z, Atrash HK.1993. Surveillance for ectopic Pregnancy-Untied States, 1970-1989. MMWR CDC Surveillance Summaries, 42 (SS-6): 73-85

Graczykowski JW, Mishell DR. 1997. Methtrexate Prophylaxis for persistent ectopic pregnancy after conservative treatment by salpingostomy. *Obstet Gynecol*., 89:118-22

Marchbanks PA, Aneger JF Coulman CB, Strathy JH Kurland LT. 1988. Risk factors for ectopic pregnancy: A population based study. *JAMA*, 259:1823-7

NCHS. 1994. Advanced report of final mortality statstics, 1992. US Department of health and human services, Public Health Service, CDC, 43(6) Suppl.

Tait RL. 1884. Five cases of extrauterine pregnancy operated upon at the time of rupture. *Br. Med J*., 1:1250

Vermesh M, Silva P, Rosen GF, Stein AL, Possum GT, Sauer MV. 1989. Management of unruptured ectopic gestation by linear salpingostomy: A prospective randomized clinical trial of laparoscopy versus laparotomy. *Obstet Gynecol*., 73: 400-3

****