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Case Study

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CASE SERIES ON SPECTRUM OF ECTOPIC PREGNANCY IN A SECONDARY HEALTH CARE FACILITY

Vivek Kumar Garg[1], Manjula Sharma*[2] and Varun Kapoor[3]

[1]Department of Radiodiagnosis, NSCB Zonal Hospital Mandi, Himachal Pradesh, India.
[2]Medical Officer, Civil Hospital, Sundernagar, Himachal Pradesh, India.
[3]Department of Gynaecology, NSCB Zonal Hospital Mandi, Himachal Pradesh, India.

***Corresponding Author: Dr. Manjula Sharma**

Medical Officer, Civil Hospital, Sundernagar, Himachal Pradesh, India.

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ABSTRACT

Ectopic pregnancy accounts for approximately 2% of all reported pregnancies with rising trends due to increased risk factors and early diagnosis. Ectopic pregnancy is one of the most common causes of first trimester mortality. A history of pain lower abdomen along with abnormal levels of β human chorionic gonadotropin(β-HCG) hormone should raise suspicion towards possibility of ectopic pregnancy. Early evaluation and further management consist of judicious use of trans-vaginal ultrasound (TVS-USG) with serial β-hCG assays. Here we present 5 cases of ectopic pregnancy at our institute with varying degrees of clinical presentation. The cases were managed accordingly using medical, surgical or expectant approach.

KEYWORDS: Ectopic pregnancy, β-HCG, trans-vaginal ultrasound, expectant, medical, surgical.

INTRODUCTION

Ectopic pregnancy accounts for approximately 2% of all reported pregnancies.[1] The main risk factors for ectopic pregnancy includes prior history of ectopic pregnancy, history of pelvic inflammatory disease, history of gynecological surgery, infertility, use of intrauterine device, history of placenta previa, use of invitro fertilization, congenital uterine anomalies, history of smoking, endometriosis and exposure to diethylstilbesterol. Prompt diagnosis and vigorous management is warranted to reduce maternal mortality in ectopic pregnancy. Diagnosis of ectopic pregnancy depends upon clinical features, TVS-USG and doubling time of β-hCG levels.[2] As the size of ectopic pregnancy increases, chances of its rupture also increase. Ectopic pregnancy presents with variable signs and symptoms and management of ectopic pregnancy can be surgical, medical and expectant depending upon age, history of risk factors and status of contralateral fallopian tube. Here we will discuss 5 cases of ectopic pregnancy with varying clinical presentation and management (medical, surgical and expectant methods).

Case 1- Chronic ectopic pregnancy

32 years old G2, P0 presented to gynecology clinic with amenorrhea of 6 weeks with mild pain abdomen and scanty discharge. On TVS-USG a poorly defined heterogenously hyperechoic right adnexal mass measuring 2x3 cm was noted with minimal free fluid in pelvis. Uterus showed increased endometrial thickness(>10mm) with no evidence of intrauterine gestational sac. Serum β-hCG levels of patient were 4060 mIU/mL. Serum hCG level doubling time was subnormal. Based on above mentioned clinical, imaging and biochemical findings, diagnosis of ectopic pregnancy was made. Patient was started with STAT I.M. Methotrexate (MTX) at a dosage of 50 mg/m^2. No substantial decrease in β-hCG levels was noted after first dose of MTX, subsequently second and third dose of MTX was given and patient achieved declining levels of β-hCG after 4 weeks. Chronic ectopic pregnancy (CEP) was suspected and patient underwent laparoscopy. A small 3x3 cm mass was noted involving interstitial portion of right fallopian tube with fine pelvic adhesions and minimal free fluid in pelvis. Histopathological evaluation of the surgical specimen confirmed CEP with areas of necrosis, blood clots and degenerated chorionic villi (Fig.1).

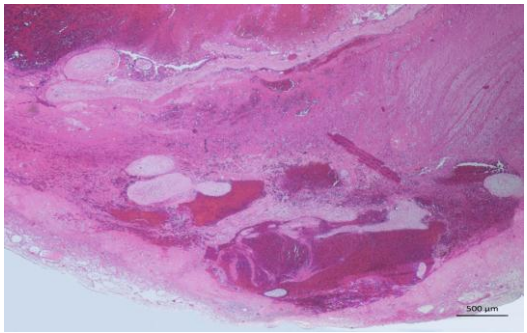

Figure 1: Histopathological image showing blood clots with necrosis and degenerated chorionic villi.

Case 2- Ruptured ectopic pregnancy with hemoperitoneum in a nullipara

20 years old nulliparous female with 5 ½ weeks of amenorrhea presented with severe lower pain abdomen and scanty bleeding per vaginum. UPT of the patient was faintly positive. On examination BP was 70/50 mm Hg with tachycardia, tachypnea, lower abdominal tenderness/guarding and severe pallor. Per vaginal examination showed cervical tenderness with fullness of left fornix. TVS-USG showed moderate echogenic free fluid in pelvis with extensive heterogenously echogenic mass lesion involving left adnexa with left ovary not separately visualised. No separate ectopic gestational sac was visualised in bilateral adnexa. Left adnexa with mass lesion and free echogenic fluid was highly suspicious for ruptured ectopic pregnancy. Subsequent β-hCG was 2243 mIU/mL. Exploratory laparotomy showed 3 L of hemoperitoneum with ruptured left sided ectopic pregnancy. Partial salpingectomy of the patient was done. Contralateral tube and ovary were healthy. Patient showed full post op recovery.

Case 3- Ovarian ectopic pregnancy

30 years old primigravida presented with pain lower abdomen for 1 week with amenorrhoea for 7 ½ weeks. On examination, mild pallor, pulse 100, BP 100/78 mmHg with tenderness in right iliac fossa was noted. Per vaginal examination showed mild cervical tenderness with no free fluid in bilateral fornices. On investigation, Hb% was 9.8 gm/dL, β-hCG was 9987mIU/mL. TVS-USG showed no gestational sac within the uterus with presence of gestational sac measuring ~ 1.3x0.6x0.6cm in right adnexa, no free fluid was noted in the pelvis (Fig.2). Provisional diagnosis of unruptured ectopic pregnancy involving right adnexa was made. Subsequently first dosage of MTX was started with serial estimation of β-hCG. On 6th day of treatment, patient suddenly presented with severe pain in lower abdomen. On examination, features of shock were noted (hypotension, pallor, tachycardia and tachypnea). In view of hemodynamic instability of patient, laparotomy was undertaken. Intra-operatively uterus, left ovary and left fallopian tube was of normal size with right ovary enlarged with bluish red mass and blood oozing from it (Fig.3). Right sided partial oophorectomy was done and contents were sent for histopathological examination. On histopathological examination, trophoblastic villi and corpus luteum embedded in the ovarian tissue were seen, which were confirmatory of primary ovarian pregnancy(Fig.4).

Figure 2: TVS-USG showing right adnexal mass with "ring of fire" sign on colour doppler.

Figure 3: Intra-op image showing right ovary with bluish red mass.

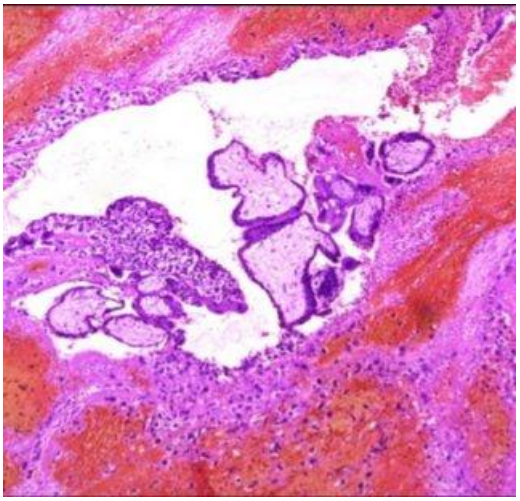

Figure 4: Histopathological image showing trophoblastic villi and corpus luteum embedded in ovarian tissue.

Case 4- Ectopic pregnancy with expectant management

20 years old primigravida presented for routine antenatal checkup at 6th week of amenorrhoea. Patient was hemodynamically stable with no abnormal finding was noted on per vaginal investigation. UPT of the patient was faintly positive. TVS-USG of the patient showed unruptured left tubal ectopic measuring ~ 3.5x3cm. Serum β-hCG of the patient was 380mIU/mL. Patient was planned to manage conservatively with weekly assessment of serum β-hCG. Patient responded favorably to the management and serum β-hCG levels returned to < 10mIU/mL after 2 weeks.

Case 5- Unruptured ectopic pregnancy with cardiac activity and high-risk factors

35 years old multigravida with history of recanalization procedure presented with amenorrhoea of 3 weeks. UPT was faintly positive. On per vaginal examination, mild spotting with cervical motion tenderness was noted. TVS-USG of the patient revealed right adnexal gestational sac with cardiac activity. Serum β-hCG was 5643 mIU/mL. A decision to surgically manage the patient was taken. On exploratory laparotomy left side salpingectomy and right-side tubal ligation was done. Histopathological examination confirmed ectopic pregnancy.

DISCUSSION

Ectopic pregnancy is an important cause of maternal mortality and morbidity in early antenatal period.[3] Unruptured ectopic pregnancy sometimes appears difficult to be distinguished from normal intrauterine pregnancy. Diagnosis of ectopic pregnancy has improved significantly due to advances in ultrasound technology, rapid and sensitive serum hormone assays. Early diagnosis reduces the risk of tubal rupture and allows more conservative medical treatments to be employed.[4] In present scenario, diagnosis of ectopic pregnancy heavily relies on combination of TVS-USG(Fig.5) with serial serum β-hCG estimations.

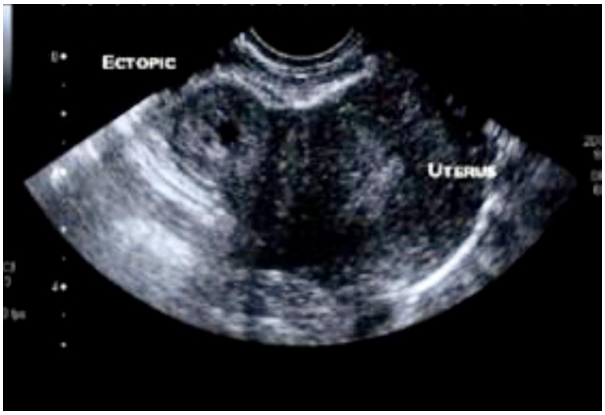

Figure 5: TVS USG showing ectopic pregnancy with normal uterus to the left side of the image with dough-nut shaped ectopic pregnancy towards the right side of the image.

The "discriminatory β-HCG level" plays an important role in the diagnosis of ectopic pregnancy. If TVS shows no intrauterine pregnancy at hCG level >2000IU/L, it can be treated as a case of extrauterine pregnancy. Ectopic pregnancy can be managed conservatively if hCG level is low and it resolves by itself in 88% patients with initial hCG less than 200mU/mL.[5] A constantly failing levels of hCG is an indicator successful medical or expectant management. In ectopic pregnancy Methotrexate is the drug of choice for medical management. Contraindications of methotrexate are hemodynamically unstable patient, ruptured ectopic pregnancy, gestational sac larger than 3.5 cm, embryonic cardiac activity, breastfeeding, immunodeficiency, liver and renal disease, pre-existing blood dyscrasias, active pulmonary disease. Surgical management includes laparotomy or laparoscopy depending upon subjective expertise. Salpingostomy is preferred over salpingectomy in cases where contralateral tube is damaged and patient is desirous of fertility.[6] Salpingostomy carries a risk of persistent pregnancy in patients with high starting βhCG levels, early gestations, and small ectopic pregnancies (<2 cm) thereby requiring weekly follow up with hCG[7]. Laparoscopically and methotrexate-treated patients have similar reproductive outcomes.

CONCLUSION

Ectopic pregnancy is one of the most common causes of first trimester mortality. Above mentioned cases show wide spectrum of ectopic pregnancy presentation and depending upon multitude of factors, varying management (either medical, surgical or expectant). In conclusion, to avoid adverse reproductive outcomes in future and associated mortality and morbidity associated with ectopic pregnancy a suitable combination of clinical acumen and diagnostic spectrum is required.

REFERENCES

1. Verma I, Chugh C, Santpur U, Pundhir P. Cervical ectopic pregnancy: a rare case report. Int J Reprod Contracept Obstet Gynecol, 2018 May 26; 7(6): 2506–8.
2. Murray H, Baakdah H, Bardell T, Tulandi T. Diagnosis and treatment of ectopic pregnancy. CMAJ Can Med Assoc J J Assoc Medicale Can., 2005 Oct 11; 173(8): 905–12.
3. Berg CJ, Chang J, Callaghan WM, Whitehead SJ. Pregnancy-related mortality in the United States, 1991-1997. Obstet Gynecol, 2003 Feb; 101(2): 289–96.
4. Barnhart KT. Clinical practice. Ectopic pregnancy. N Engl J Med., 2009 Jul 23; 361(4): 379–87.
5. Korhonen J, Stenman UH, Ylöstalo P. Serum human chorionic gonadotropin dynamics during spontaneous resolution of ectopic pregnancy. Fertil Steril, 1994 Apr; 61(4): 632–6.
6. Taylor PJ. Surgical Reversal of Tubal Ligation. Can Fam Physician, 1979 May; 25: 579–82.

7. Gracia CR, Brown HA, Barnhart KT. Prophylactic methotrexate after linear salpingostomy: a decision analysis. Fertil Steril, 2001 Dec; 76(6): 1191–5.