DOI: https://doi.org/10.53350/pjmhs2115102845

ORIGINAL ARTICLE

Variance in clinical presentation of Ectopic pregnancy

AREEBA AFTAB[1], MEMOONA FAIYAZ[2], UZMA FAHIM[3], HUMAIRA TABASSUM[4], SAIMA RAFIQUE[5], AASMA HANIF[6]
[1]*Consultant Gynecologist, Ali General Hospital, Multan*
[2,6]*Senior Registrar*
[3,4]*Assistant Professors, Department of Obstetrics & Gynecology, Azra Naheed Medical College/Chaudhry Muhammad Akram Teaching Research Hospital, Lahore*
[5]*Associate Professor, Department of Obstetrics, & Gynecology, University of Lahore Teaching Hospital Lahore*
Correspondence to: Areeba Aftab, E-mail: areebaaftab@hotmail.com, Cell: 0333-4543165,

ABSTRACT

Objective: To adjudge the prevalence of distinct presentations in ectopic pregnancy.
Research Design: Descriptive cross-sectional.
Place and Duration of Study: Emergency Labour Ward Department of Obstetrics & Gynecology, Nishtar Hospital Multan from 1.07.2017 to 31.12.2017.
Methodology: Ninety five patients having positive pregnancy tests and uterine cavity with no intrauterine gestational sac on ultrasound were included. Clinical presentation like amenorrhea, vaginal bleeding, acute abdomen, shock or asymptomatic were assessed.
Results: Amenorrhea observed in 73(76.8%) women, vaginal bleeding was seen in 32 (33.7%) women, 88 (92.6%) patients presented with acute abdomen and vitals instability was seen in 8 (8.4%) patients and 6(6.3%) patients were without symptoms.
Conclusion: The two most common clinical presentations in patients included in study were amenorrhea and acute abdomen. Thorough evaluation of the patients with sub-acute or chronic presentation should be adopted to diagnose the cases of ectopic pregnancy.
Key words: Ectopic pregnancy; Clinical presentation; Variations

INTRODUCTION

Ectopic pregnancy is the implantation of fertilized ovum outside the endometrial cavity of uterus. The ampullary portion of fallopian tube is the most common site where 95% of the ectopic pregnancy occurs.[1] The other less common sites are ovary, cervix, cornua of uterus and abdominal cavity.[2] Ectopic pregnancy needs to be excluded when a woman presents with early pregnancy problem of bleeding. The bleeding is mainly uterine in origin and results from withdrawal of hormones as pregnancy dies. The bleeding may be heavy like a normal menstrual period. Confidential Enquiry of Maternal and Child Health for 2003–2005, documented that ten maternal expiries were because of ectopic pregnancy.[3] The frequency of ectopic pregnancy have increased from 0.5% 30 years ago to 1-2% today, which may be attributed to pelvic inflammatory disease or IUCD use.[4] In IVF and ICSI the incidence can increase up to 3-5%.[5]

Ectopic pregnancy is a grievous condition and can lead to death in early gestation.[6] In Pakistan, it has been reported to increase from 1:112 to 1:130.[7] Signs and symptoms of ectopic pregnancy can be deceiving and doubt is increased if patient's pregnancy test is positive.[8] Early symptoms may be minimal or absent. Patients usually present between 5-8 weeks of gestation after missing their periods.[9] The main symptoms of ectopic pregnancy are abdominal pain, pelvic pain (92%),(82%) presenting with missing periods and bleeding per vaginum (76%).[7,8] Patients with ruptured ectopic usually present with shock (14%).[10,11]

Tubal pregnancy has a wide range of pattern of presentation, which may be acute, sub-acute or chronic. Early pregnancy symptoms, including amenorrhea, nausea, breast fullness, fatigue and heavy cramping may be the initial presentation.[12] Tubal pregnancy may be confused with other conditions like torsion of ovarian cyst, threatened abortion and other causes of acute abdomen. All women of child bearing age group with missed periods, having acute abdominal pain with or without vaginal bleeding, should be regarded as having ectopic pregnancy until and unless proved otherwise.[13]

Frequently available abdominal/transvaginal ultrasound and serum hCG (β-hCG) levels at presentation has lead to an early diagnosis and intervention before tubal disturbance.[14] Ectopic Pregnancy is usually diagnosed by non-invasive methods, i.e. by sensitive hCG levels in urine and serum, and high resolution transvaginal sonography (TVS), which have been integrated in reliable diagnostic algorithms. These algorithms, in combination with increased awareness and knowledge of risk factors among both doctors and patients, have enabled an early and precise diagnosis of this displaced pregnancy.[15,16]

Clinical presentations of ectopic pregnancy are not specific.[17] The classical historic triad for ectopic pregnancy is that of amenorrhea, abdominal pain and vaginal bleeding. This combination is observed in 65-70% of patients. Uterine size is normal on bimanual examination and closed cervical os, in 71% of ectopic pregnancy patients. Transvaginal ultrasound has become the investigation of choice for the diagnosis of ectopic pregnancy along with quantitative evaluation of serum beta hCG level. After missing the periods in 5-6 weeks, with a corresponding serum hCG level of 2000 iu/l, the sensitivity of TVS increases.[18] In few cases, dilatation and curettage, for the presence or absence of products of conception be done to differentiate between an ectopic pregnancy and a miscarriage.[19] Once the likelihood of a abortion is eliminated, therapeutic or operative measures for entopic pregnancy are outlined.[20] To maximize the reproductive potential minimal treatment related morbidity is recommended.[21]

MATERIALS AND METHODS

This study was conducted in Department of Obstetrics & Gynecology, Nishtar Hospital Multan from 1st July 2017 to 31st December 2017. Ninety five patients with amenorrhea, tested positive for pregnancy and with no evidence of uterine pregnancy on ultrasound were enrolled. All women of reproductive age between 15-45 years, irrespective of parity, meeting the inclusion criteria were included. All patients with bleeding disorders, taking any anticoagulants, medical illness e.g. diabetes, hypertension, liver disease and hemodynamically unstable patients due to causes other than ectopic pregnancy were excluded. Age, parity and period of amenorrhea were confirmed by history. On history and examination main presenting features like missing periods, bleeding per vaginum, vitally unstable and generalized or lower abdominal pain were noted. Data was surveyed by applying statistics program (IBM- SPSS-20).

RESULTS

Forty seven women out of total were in their first pregnancy, 35 (36.8%) patients were with two or more children, and 13(13.7) were grand multigravida. In general5.83±1.32 weeks was the period of amenorrhea on presentation (Table1).

Seventy three (76.8%) women had missed their periods, bleeding per vaginum was observed in 32 (33.7%) patients, tenderness in lower abdomen in 88 (92.6%) patients and 8 (8.4%) were vitally unstable on presentation, respectively. Asymptomatic patients were only six (6.3%) [Table 2].

Table 1: Demographics of patients

Variable	No.	%
Age (years)	26.83±7.32	
Gravida		
Primigravida	47	49.5
Multigravida	35	36.8
Grand multigravida	13	13.7
Gestational age (weeks)	5.83±1.32	

Table2: Distribution of patients by symptoms at presentation

Variable	No.	%
Amenorrhea	73	76.8
Acute abdomen	88	92.6
Shock	8	8.4
Asymptomatic/accidental	6	6.3
Vaginal bleeding	32	33.7

DISCUSSION

In early pregnancy problems ectopic pregnancy is still a major reason of morbidity and mortality, prompt diagnosis of the problem is required. In this study an attempt has been made to find out the diversity in symptoms and signs of ectopic pregnancy. Ninety five patients with ectopic pregnancy were entered for analysis. The review of results showed that tender abdomen was the most prevalent presentation (92.6%), then missing periods i.e. amenorrhea (76.8%) followed by bleeding per vaginum (33.7%). Shock was not uncommon and observed in (8.4%) while 6.3% were diagnosed incidentally.

In the present study, most of patients were in age group of 15-30 years (76.8%) it corresponds with the study by Ali et al[22], showing that 199 patients included in the study were between 27.9±6.3 years. This average age is also established by Shahab et al[23] who observed that, most of the patients (62.5%) with ectopic pregnancy included in their study were of 20-30 years of age.

Most of the patients (49.5%) in our study were pregnant for the first time, while grand multi-gravida was only 13.7%. This suggests that ectopic pregnancy is more prevalent in primigravida as implied in study by Ali et al[22], the mean parity was 4.9±2.6. The study by Constantin[23], showed45% of women were nulliparous, and only 7%were grand multipara, which reveals that the risk of ectopic pregnancy drops with rising parity.

76.8% patients enrolled in study presented with amenorrhea, which is parallel with the study by Constantin[23] and Imran et al[11] in which amenorrhea was present in 75% and 82% patients respectively. However, Hassan et al[24], observed amenorrhea in 51.6% cases only. Overdue of dates or missing periods is one of the consistent presentations of ectopic pregnancy, as observed in some other studies as well.

Hassan et al[24] described vaginal bleeding in 25.7% patients of their study population, corresponding with our study showing it in almost one third (33.7%) of the patients. However, Constantin[23] observed vaginal bleeding in 45% patients. So, different studies documented a considerable variance in frequency of bleeding per vaginum as presenting complaint in ectopic pregnancy.

In study by Constantin[23] and Imran et al[11] showed presentation with lower abdominal pain in 92.5% of patients, which correlates with abdominal pain observation in 92.6% patients on presentation in our study. Hassan et al[24] observed abdominal pain in 70.9% patients.

8.4% of patients were vitally unstable and were in a state of shock on presentation which shows difference with other studies like, Constantin[23] study showed shock in 25% patients. While Imran et al[11], documented vitals instability in 18% patients. In our study cause of viewing of lower frequency of shock was that we conducted the study at tertiary care unit, where we receive the patients before getting vitally unstable.[24]

Ectopic pregnancy is notoriously hard to diagnose or exclude, based on history and examination alone, as 10 percent of patients with ectopic pregnancy have a completely normal examination on presentation.[25] The predominance of tender abdomen and amenorrhea was seen in most of the patients. Ruptured ectopic pregnancy may be possible in patients presenting with extremely low beta hCG level, one should maintain a high suspicion of ectopic pregnancy in an appropriate clinical context i.e. young female with peritoneal signs or syncope, despite a negative urine pregnancy test.[26]

CONCLUSION

Thorough evaluation of the patients with sub-acute or chronic presentation should be adopted to diagnose the cases of ectopic pregnancy. However, other symptoms like shock with intra-abdominal bleeding, spotting per vaginum or even patients without symptoms may also be present. So, the treating doctor should suspect ectopic pregnancy while handling with such symptoms until and unless proved otherwise.

REFERENCES

1. Sepilian V, Wood E. Ectopic pregnancy. eMedicine Specialities Obstetrics & Gynaecology Updated on May 7, 2010. Online (Accessed 2010 June 6).1-5.
2. Tumbarello DA, Manna PT, Allen M, Bycroft M, Arden SD, Kendrick-Jones J, et al. The autophagy receptor TAX1BP1 and the molecular motor myosin VI are required for clearance of Salmonella typhimurium by autophagy. PLoS Pathogens 2015; 11(10):e1005174.
3. Bowyer L. The Confidential Enquiry into Maternal and Child Health (CEMACH).Saving Mothers' Lives: reviewing maternal deaths to make motherhood safer 2003–2005.The Seventh Report of the Confidential Enquiries into Maternal Deaths in the UK. Obstet Med 2008;1(1):54.
4. Thia E, Loi K, Wang J, Siow A. Methotrexate treatment for ectopic pregnancy at the KK Women's and Children's Hospital, Singapore. Singapore Med J 2009; 50(11):1058.
5. Fernandez H, Gervaise A. Ectopic pregnancies after infertility treatment: modern diagnosis and therapeutic strategy. Human Reprod Update 2004;10(6):503-13.
6. Majhi AK, Roy N, Karmakar KS, Banerjee PK. Ectopic pregnancy - an analysis of 180 cases. JIndian Med Assoc 2007;105(6):308,
7. Mahboob U, Mazhar SB. Management of ectopic pregnancy: a two-year study. J Ayub Med Coll Abbottabad 2006;18(4):34-7.
8. Hourani R, Hachem K, Haddad-Zebouni S, Mansour F, Elhage A, Checrallah A, et al. The multiple ultrasound patterns of ectopic pregnancy. Lebanese Med J 2008;56(1):27-34.
9. de Melo JKF, Davim RMBD, da Silva RAR.Vantagens e desvantagens do parto normal e cesariano: opinião de puérperas. Revista de Pesquisa: Cuidado é Fundamental Online 2015;7(4):3197-205.
10. Lozeau AM, Potter B. Diagnosis and management of ectopic pregnancy. Am Fam Physician 2005;72(9):1707-14.
11. Imran A, Mustafa N, Akhtar N. Frequency of different presentations and surgical management of ectopic pregnancy at Combined Military Hospital Lahore. Pakistan Armed Forces Med J 2009;59(2):207-10.
12. Murphy F, Jones E, Horsley S. Miscarriage and ectopic pregnancy 2: management. Nursing Times 2008;104(23):24.
13. Condous G. Ectopic pregnancy: risk factors and diagnosis. Austr Family Physician 2006;35(11):854.
14. Eskandar M. Single dose methotrexate for treatment of ectopic pregnancy: risk factors for treatment failure. Middle East Fertility Soc J 2007;12(1):57.
15. van Mello NM, Mol F, Adriaanse AH, Boss EA, Dijkman AB, Doornbos JP, et al. The METEX study: methotrexate versus expectant management in women with ectopic pregnancy: a randomised controlled trial. BMC Women's Health 2008;8(1):10.
16. Hallatt JG. Primary ovarian pregnancy: a report of twenty-five cases. Am J Obst Gynecol 1982;143(1):55-60.
17. Dorfman SF, Grimes DA, Cates JW, Binkin NJ, Kafrissen ME, O'Reilly KR. Ectopic pregnancy mortality, United States, 1979 to 1980: clinical aspects. Obstet Gynecol 1984;64(3):386-90.
18. Barnhart KT, Simhan H, Kamelle SA. Diagnostic accuracy of ultrasound above and below the beta-hCG discriminatory zone. Obstet Gynecol 1999;94(4):583-7.
19. Carson SA. Buster JE.Ectopic pregnancy. N Engl J Med 1993;329:1174-81.
20. Stovall TG, Ling FW, Gray LA. Single-dose methotrexate for treatment of ectopic pregnancy. Obstet Gynecol 1991;77(5):754-7.
21. Ramakrishnan K, Scheid DC. Ectopic pregnancy: expectant management or immediate surgery? An algorithm to improve outcomes. J Fam Prac 2006;55(6):517-23.
22. Ali A, Abdallah TM, Siddig MF. Diagnosis of ruptured ectopic pregnancy is still a challenge in Eastern Sudan. Afr J Reprod Health 2011; 15(4):106-8.
23. Constantin L. The role of microRNAs in cerebellar development and autism spectrum disorder during embryogenesis. Molecular Neurobiol 2017;54(9):6944-59.
24. Hassan N, Zaheen Z, Jatoi N, Srichand P, Shaikh F. Risk factors, clinical presentation and management of 62 cases of ectopic pregnancy at tertiary care center. J Liaquat Univ Med Health Sci 2009;8(3):238-41.
25. Cartwright PS: Diagnosis of ectopic pregnancy. Obstet Gynecol Clin North Am 1991;18:19-37.
26. Kalinski, MA, Guss, DA: Hemorrhagic shock from a ruptured ectopic pregnancy with a negative urine pregnancy test result. Ann Emerg Med 2002;40:102-5.