

Profile of Ectopic Pregnancy at Western Regional Hospital

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ABSTRACT

Background & Objectives: Ectopic pregnancy (EP) is one of the common life threatening obstetric emergencies which if not recognized and managed on time can be ruptured which could be a cause of death. Unfortunately, the world wide incidence of EP is in an increasing trend. The main objective of this study is to assess the frequency, trends, blood loss and management aspects of EP at Western Regional Hospital (WRH), Pokhara. **Materials & Methods:** The study was carried out in the department of Obstetrics and Gynecology, WRH. Data were collected and analyzed from patient's records and discharge summary during the period of 2072-1-1 to 2072-9-30 B.S, retrospectively. Total number of hospital deliveries (7250) during this period was obtained from record section. Diagnosis of EP was made by urine beta- hcg (human chorionic gonado-tropin hormone, qualitative) test and pelvic ultrasonography. **Results:** The incidence of ectopic pregnancy was one in every 168 deliveries. Forty three such ectopic pregnancies were diagnosed and managed during the period, the mean age was 26.34 years, the median being the age of 25-29 years (16 patients). Twenty seven patients had ruptured ectopic pregnancy. Of all the cases, the number of patients with heterotopic pregnancy and intra uterine contraceptive device (IUCD) in situ were one for each (2.3%). All cases were satisfactorily managed with no mortality, and a mean of 6.1 days of hospital stay. **Conclusion:** Ectopic pregnancies are common cause of hospital admission, irrespective of patient's age all of which were managed at WRH with no mortality.

Key words: Ectopic pregnancy; hemoperitoneum; urine pregnancy test.

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INTRODUCTION

Ectopic pregnancy (EP) is one of the common condition which can be life threatening during pregnancy leading to maternal death. The incidence of EP has been on increasing trend worldwide. By definition, implantation of fertilized ovum outside the endometrial lining of uterus is ectopic pregnancy.¹ Most common site for ectopic being tube, accounting approximately 98% of all EP;² however other possible sites include: cervical, interstitial (also referred to as cornual; a pregnancy located in the proximal segment of the fallopian tube that is embedded within the muscular wall of the uterus), hysterotomy scar, ovarian and

abdominal. In addition, in rare cases, a multiple gestation may be heterotopic (include both an intrauterine and extrauterine pregnancy).³ This unusually implanted gestation depends on the implanted site to grow and draws blood supply which may be potentially life threatening as it grows and eventually rupture.⁴ The morbidity and mortality associated with ectopic pregnancy are directly influenced by the time interval between the onset of symptoms and start of treatment.⁵ The combination of urine pregnancy test, serum B-hcg estimation and ultrasound examination enable the early diagnosis of ectopic pregnancy in modern clinical practice. However, the diagnostic accuracy

and sensible application of these tests rely on good clinical skills and availability of tests. No wonder taking into clear patient history and examination and knowing patient's symptoms and signs with positive urine pregnancy tests arouse the health workers for suspicion of EP and prepare them for referral to tertiary centre.

MATERIALS AND METHODS

This is a centre based retrospective study carried out in the department of Obstetrics and Gynecology at WRH. Ethical permission for the study was taken from the hospital administration. Data collection and analysis of patients admitted with the diagnosis of ectopic pregnancy during the period of nine months (2072-1-1 to 2072-9-30 B.S.) were collected from the OT (operation theatre), gynaecology ward registers and medical record section. Patient's age, incidence, blood loss, risk factors like previous history of abortion, infertility treatment, current use of intrauterine contraceptive device (IUCD), previous history of tubal surgery, history of previous caesarian section, endometriosis, in vitro fertilization, uterine defects, previous ectopic, pelvic inflammatory diseases and treatment modalities were taken into consideration. Total numbers of hospital stay and amount of total blood loss observed during the surgical intervention were also recorded. Different gynecological operative procedures if performed earlier and the number of total deliveries during the period were also used for study. Because of the limitations of retrospective data collection we were not able to include some other information in our study. The data were entered in excel computer software and analyzed on descriptive way; statistical mean, SD (standard deviation) and proportion were calculated.

RESULTS

Out of total 7,250 hospital deliveries, 43 presented with ectopic pregnancy during the specific period of nine months. The frequency of ectopic pregnancy was found to be one in 168 deliveries that is 0.59%. The mean age of patients was 26.34 years of old with only 7 % (n=3) were above 35 years , oldest being 38 years and youngest being at the age of 15 years which has been shown in Figure 1. Sixty two percent patients had ruptured ectopic pregnancy. Of the all cases, the number of patients with heterotopic pregnancy and IUCD in situ were one for each (2.3%). Ultrasonography was performed

in all cases. Various amounts of hemoperitoneum and adnexal mass were common findings of USG for ruptured EP, whereas positive urine pregnancy test, empty endometrial cavity and adnexal mass with the history of abdominal pain gave the diagnosis of unruptured ectopic pregnancy. Sixteen (37%) cases had unruptured ectopic pregnancy and all cases had tubal pregnancy. Right side (60%) involvement was more common side for implantation (26 Vs 17). All cases underwent surgery with salpingectomy, of them four cases had contra-lateral tubal ligation also, one case with heterotopic pregnancy underwent salpingectomy along with manual vaccum aspiration (MVA) and one case with IUCD had salpingectomy along with IUCD removal. Most of the cases had 500 ml-1000ml of blood loss which is shown in Table 1. Five cases (11.62%) had blood loss of more than 2500 ml. The maximum amount of blood loss was 3500 ml found in two cases. The mean hospital stay days were 6.1. Only five cases had longer stay. According to our hospital protocol and setup, stay

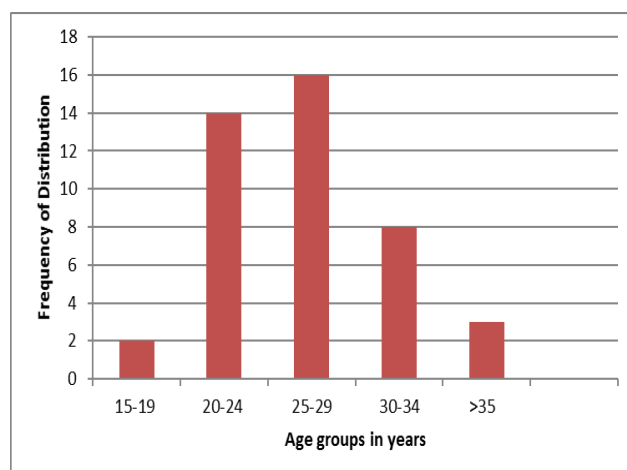


Figure 1. Distribution of patients by age (in years)

Table 1. Total amount of blood loss noted during surgery

Total amount of blood loss (ml)	Frequency	%
Less than 100	1	2.3
101-500	1	2.3
501-1000	17	39.5
1001-1500	5	11.6
1501-2000	12	27.9
2001-2500	2	4.7
> 2500 ml	5	11.6
Total	43	100.0

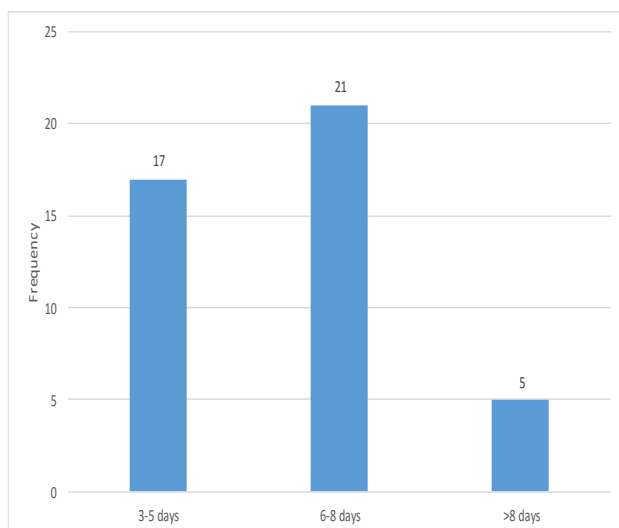


Figure 2. Duration of hospital stay

more than seven days after laparotomy in hospital is defined as longer stay. Patient who had maximum amount of blood loss (3500ml) stayed for 10 days in hospital before they were discharged as shown in Figure 2. Along with the surgery, IV fluid, blood transfusion, antibiotics and analgesics were main components of treatment for satisfactory result with zero mortality.

DISCUSSION

Ectopic pregnancy is a medical emergency and needs proper management. It is a common obstetrical disorder in early pregnancy which is an important cause of maternal mortality and morbidity.⁶ Researches have found that the incidence of EP has been increasing worldwide and it is also a main cause for gynecological admissions in hospital.^{4,7} The frequency of ectopic pregnancy in this study was 0.59% which is quite comparable to other studies done in India⁸ and Saudi Arabia⁹⁻¹⁰ but it is comparatively lower than the study conducted by Pradhan et al¹¹ at Kathmandu Model Hospital. Population density might be one of the causes for frequency discrepancy in Kathmandu Model Hospital and in WRH. The majority of patients on this study with EP were in the age group between 25 to 29 years old which was quite similar to study (age group of 26 to 30 years) conducted by BP Koirala Institute of Health Sciences (BPKIHS).⁵ Few research revealed that the rising incidence of ectopic pregnancy among young female is due to the fact they are sexually active.¹² All patients in our study had chief complain of abdominal pain. 62% of cases had ruptured ectopic pregnancy. Being the referral hospital, patients coming from

outside the valley may reach the hospital later. However all patients were managed successfully with no mortality during that period. In a research by Majhi et al.,¹³ 70.2% cases had ruptured ectopic pregnancy. The rate of ruptured EP in our study was significantly lower than that of study conducted by Pradhan et.al,¹¹ 86.89% at Kathmandu Model Hospital. Various risk factors were associated with EP, however the common risk factor being pelvic inflammatory disease.¹³ One case with Copper-T in-situ had EP, which was quite similar to the study by Shah et al.¹⁴ from Pakistan.

Emergency ultrasound was performed in all cases. They presented various amounts of hemoperitoneum with adnexal mass. All cases had positive urine pregnancy test. Amenorrhea, abdominal pain, empty endometrial cavity with adnexal mass always arouses the suspicion of EP in reproductive age women coming in emergency department. Emergency surgical management with blood transfusion to the needy patient decreased the patient's mortality and morbidity rate. Nepal Red Cross Blood bank facility, which supplies blood, lies within the hospital premises is a great advantage for our patients.

CONCLUSION

Ectopic pregnancy may occur in any reproductive age. Irrespective of patient's age, all patients almost invariably presented with an abdominal pain, all of them were managed at WRH, with no mortality.

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