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Study of Ectopic Pregnancy at Tertiary Care Hospital in Province 1 of Nepal

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ABSTRACT

Background: Ectopic pregnancy can be managed expectantly, medically or surgically. Laparoscopic surgery is considered gold standard. The aim of this study was to find incidence, risk factors, clinical presentation and mode of management of ectopic pregnancy.

Methods: Prospective descriptive study was conducted at Nobel Medical College and Teaching Hospital, Biratnagar. All the cases of diagnosed ectopic pregnancy were enrolled in the study. All the relevant data of the patients were recorded in pre-designed Performa. The collected data were entered in MS Excel and exported into SPSS 21 version for statistical analysis.

Results: The incidence of ectopic pregnancy was 0.8%. Most of the patients (35 ;(58.3%) belonged to 20-30 age group. The classic triad of pain abdomen, amenorrhea and per vaginal bleeding was present in 41 (68.3%) cases. The most common risk factor associated was PID (39 ;-(65%) followed by abortion 98 ;-(13.3%). USG findings were suggestive of ruptured ectopic pregnancy, which was seen in 52(86.7%) cases and. 93.3% of the cases were managed surgically. The most common site of ectopic pregnancy was found to be ampulla 35(58.3%) followed by isthmus 11(18.3%). There was no mortality.

Conclusions: Pelvic inflammatory disease was the commonest risk factor, laparotomy was the commonest modality of surgical management and ampulla was the commonest site of ectopic pregnancy. Early diagnosis, referral and treatment in the tertiary care center prevents morbidity and mortality related to ectopic pregnancy.

Keywords: Ectopic pregnancy; methotrexate; ultrasonography

INTRODUCTION

Ectopic pregnancy remains the leading cause of maternal death in early pregnancy. [1] The incidence is around 0.3-0.5% of deliveries in U. S. and U. K, 4% of deliveries in Ghana and 2.1% of deliveries in Nigeria.[2,3] Similarly, a incidence of 1.46% of ectopic pregnancy has been reported in a study conducted in Nepal.[4]

Severalpredisposing factors, including pelvic inflammatorydisease and previous induced abortions havebeen identified.[5-7] The early diagnosis of ectopic pregnancy is greatly aided by estimation of ß-hCG hormone in blood and use of ultrasonography and laproscopy.[8]

Since, the ectopic pregnancy is an important health problem among the reproductive age group of women; the study was aimed to determine the risk factors, clinical profile and mode of management so as to make recommendations to reduce the incidence of this threatening condition.

METHODS

A hospital based descriptive study was carried out prospectively from 1st July 2017 to 30th June 2018 at the Department of Obstretrics and Gynaecology of Nobel Medical College Teaching Hospital (NMCTH) after getting the approval from the institutional review committee, NMCTH. All the cases diagnosed to have ectopic pregnancy and ready to give their consent were included as participants the in the study.

Patients attending emergency department and having clinical suspicion of ectopic pregnancy were investigated. Urine for beta human chorionic gonadotrophin (beta hCG) was done in all patients. Urgent ultrasound

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abdomen and pelvis was performed by a qualified radiologist. Serum beta hCG level was estimated as and when necessary. Clinical analysis, urine for beta hCG, USG abdomen/pelvis and intra operative findings were used to diagnose ectopic pregnancy. All relevant clinical details, USG findings and operative findings were recorded in a predefined proforma

The collected data was entered in MS Excel and was exported into SPSS 21 version for statistical analysis. For descriptive statistics percentage and mean was calculated along with graphical and tabular presentation.

RESULTS

Total number of deliveries in this hospital during this period was 6,754. There were total 60 cases of ectopic pregnancy during the study period with incidence of 0.8%. The mean age of the study population was 25±4.5 years. Most of the patients 35 (58.3%) belonged to 20-30 age group (Table-1).

Table1. Age group distribution of ectopic pregnancies (n=60).

Age group(years)	Frequency n (%)
<20	6 (10)
20-30	35(58.3)
31-35	11(18.3)
>35	8(13.3)
Total	60 (100)

The classic triad of pain abdomen and amenorrhea were observed in all cases but per vaginal bleeding was present only in 41 (68.3%) (Figure 1). The most common risk factor associated with it was PID 39 (65%) followed by abortion 8(13.3%) and 7(11.7%) patients did not have any identifiable risk factors (Figure 2).

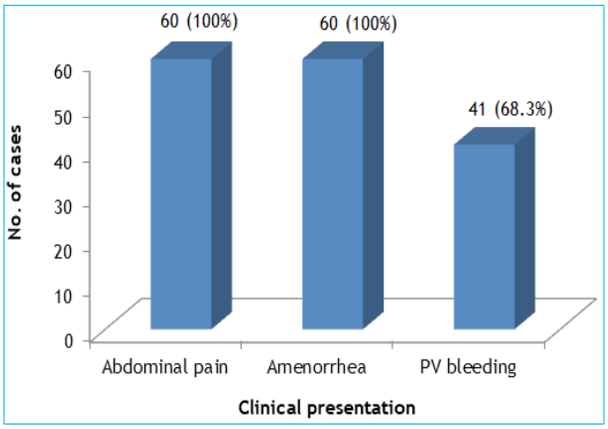

Figure 1. Clinical Presentation of ectopic pregnancy.

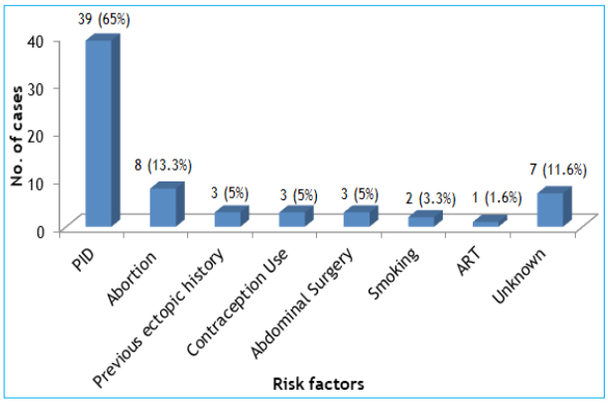

Figure 2. Frequency of Associated risk factors in ectopic pregnancy.

USG findings were suggestive of ruptured ectopic pregnancy, which was seen in 52(86.7%) patients and 93.3% of the cases were managed surgically. The most common site of ectopic pregnancy was found to be ampulla 35(58.3%) followed by isthmus 11(18.3%). There was not any mortality in this study.

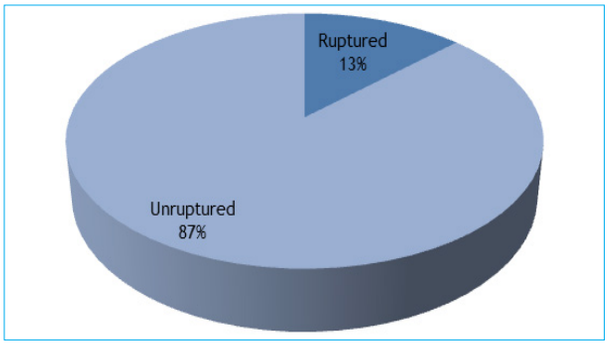

Figure 3. Ectopic status in study group.

Table 2. Mode of management.

Mode of management	Frequency(n)	Percentage(%)
Surgical	56	93.3
Laprotomy	48	85.72
Laproscopy	8	14.28
Medical	2	3.3
Expectant	2	3.3
Total	60	100

Most of the patients 48(85.72%) underwent laparotomy as a mode of surgical management.They presented late and were hemodynamically unstable with gross hemoperitonium in many cases

Of the 60 study patients, only 6 patients had their ß-hCG >2500 and two <1500.

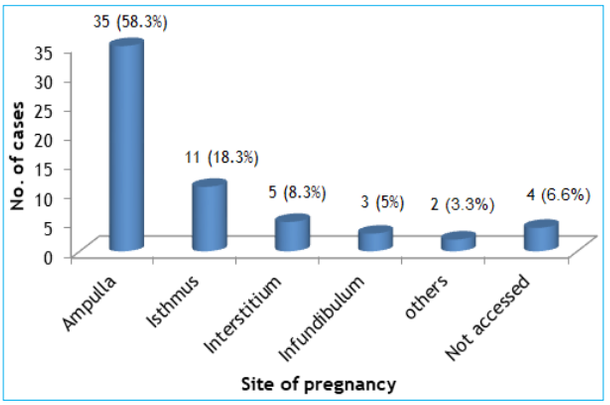

Figure 4. Site of Ectopic Pregnancy.

DISCUSSION

In the present study the incidence of ectopic pregnancy is 0.8% of total deliveries which is similar (0.81%) to study done by Sudha et al[9] at Tamil Nadu, India. In another study conducted by Prasannajeet et al[10] the incidence of ectopic pregnancy was 1.33% which is higher than the incidence of our study.

Majority of the patients 35(58.3%) in our study were in the age group of 20-30 years. Similar results were found in Poonam et al[11] and Yeasmin et al[12] studies. This corresponds to the age of peak sexual activity and reproduction. There are studies stating that age related tubal changes increases the incidence of ectopic pregnancy.[13]

The commonest risk factors among the study population were pelvic inflammatory disease,prior history of abortion, abdominal surgery, ART, use of contraceptive devices and smoking. Similar risk factors were found in other studies. The most common cause of ectopic pregnancy in this study was PID (33;(55%) followed by previous history of abortion (6; (10%) which is comparable to the study conducted by Poonam et al.[11]

The most common presenting symptoms was abdominal pain which was found in all patients. The classical triad was found in 41(68%) of cases which is almost similar to the study conducted by Archana et al (71.2%) and Mamta et al (54.2%).

Urinary pregnancy test and USG was done in all patients. Serum beta hCG was sent only in stable patients with unruptured ectopic pregnancy, planned for medical and expectant management. In this study beta hCG was sent in only 6 patients; 86.7% of as compared to Poonam et. al. (82.6%).[11]

In the present study 56(93.3%) patient underwent surgical management. Medical management 2(3.3%) and expectant management 2(3.3%) were done in hemodynamically stable patients with unruptured ectopic pregnancy. In present study, Salpingectomy was done in 54(96.5%) patients and salpingoophrectomy in only 2(3.5%) cases, which is almost similar to the study[14-16] in which salpingectomy was done in 48(96%). The most common site of ectopic was ampulla (35;(58.3%) followed by isthmus (11;(18.3%) and interstitium (5;(8.3%). In 2(3.3%) cases ovarian ectopic pregnancy was present. Similar results were seen in the study conducted by Wakankar et al.[1] Initially 4 patients were kept for medical management, but 2 patients underwent surgery because of rupture after receiving one dose of methotrexate. One case received two dose regimen where as other received multiple dose regimen, total 4 doses of methotrexate(1mg/kg) with folinic acid on alternate day. Expectant management was done in 2(3.3%) unruptured ectopic pregnancies in which initial ß-hCG level was <1500 IU and patients were hemodynamically stable.

CONCLUSIONS

Ectopic pregnancy with complications is a serious obstetric emergency. Surgical intervention was the commonest mode of management modality because of late presentation in our hospital. Pelvic inflammatory disease was the commonest risk factor.

Regular and good antenatal check up with early screening of high risk cases and anticipating the complication may prevent maternal morbidity and mortality. In the government and private health facilities ,health care provider should be aware of the complication so that early referral improves the outcome of the complicated ectopic pregnancy.

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