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Research Article

Clinical Study of Ectopic Pregnancy in Nepal

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ABSTRACT

Introduction: Ectopic pregnancy is a global problem yet many women are unaware of this condition. In a low- income country like Nepal, women donâ€™t seek timely antenatal care so early diagnosis of ectopic pregnancy becomes a challenge in our setting. Ectopic pregnancy if left untreated can result in maternal morbidity and mortality.

Objective: The study was carried out to find out the incidence of ectopic pregnancy as well as to elucidate risk factors in such women which will help in identifying the high risk groups and making them aware about the condition. Methods: This hospital based observational study was carried out retrospectively between May 1, 2019 to April 30, 2020 in Gandaki Medical College. All confirmed 33 cases of ectopic pregnancy were included in the study. The total number of deliveries during this period was obtained from the labor ward registers. Data were analyzed usingdescriptive statistics.

Results: In the present study, the incidence of ectopic pregnancy was 1.5%. Most ectopic pregnancies were in the age group 21-25 years and 31-35 years with 81.8% women being multiparous. 36.36% of ectopic pregnancies had gestational age of more than 8 weeks. Use of emergency pills and medical abortion were the most common identifiable risk factors. In 15.15% of patients, no cause was identified. The most common symptom was abdominal pain which was present in 100% of patients followed by amenorrhea(72.7%) and vaginal bleeding (45.4%). 97% of ectopic pregnancies were located in fallopian tube, ampulla being more common. Tubal rupture and hemoperitoneum were present in 75.75% of patients which were managed successfully by radical surgery.

Conclusion: The incidence of ectopic pregnancy is on the rise due to various contributing factors. Timely detection and intervention can help to prevent maternal catastrophe. Hence knowledge regarding risk factors is necessary when we are counselling women about ectopic pregnancy.

Keywords: Ectopic, Incidence, Maternal Mortality, Risk Factors, Symptoms

INTRODUCTION

An ectopic pregnancy is one in which the fertilized ovum is implanted and develops outside the normal endometrial cavity [1]. It complicates 1% of all pregnancies and is one of the leading causes of the maternal morbidity and mortality especially in low income countries [2,3]. About 95% of ectopic pregnancies are tubal in origin. Rarely, it occurs in the ovary, rudimentary hom of a bicornuate uterus and the cervix [4]. The classical clinical triad of amenorrhea, bleeding per vaginum and lower abdominal pain is present in less than 50% of cases [5].In a reproductive aged woman presenting with acute abdomen, ectopic pregnancy should always be considered. The modality of treatment depends on the clinical state of the patient, serum ß-HCG level, USG findings and desire for future fertility (Table 1).

An ectopic pregnancy has received a great deal of attention in present day due to its association with fertility [6]. Ectopic pregnancy is on the rise, likely contributions being increasing incidence of sexually transmitted infections, ovulation inducing drugs, abdomino-pelvic surgeries and intrauterine contraceptive device use [7,8].However, ectopic pregnancy related deaths are decreasing owing to early diagnosis and prompt management. Delay or error in diagnosis makes a ruptured ectopic pregnancy still a common occurrence in our setting (Table 2).

Nepal has a highest number of recorded maternal deaths. In Nepal, pregnant women don't seek early antenatal care due to various financial and geographical constraints because of which most cases of ectopic pregnancies remain undiagnosed till it ruptures. The late presentation of a woman in hypovolemic shock to a health facility due to ruptured ectopic is a common finding. These women have massive hemorrhage requiring multiple units of blood transfusion and some succumb to death due to unavailability of blood products

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Table 1: Ectopic pregnancy in relation to age.

Age group (years)	No. of cases	%
15-20	4	12.12
21-25	9	27.27
26-30	3	9.1
31-35	9	27.27
36 and above	8	24.24

Maximum number of ectopic pregnancies was observed in the age group 21-25 years and 31-35 years, each group having 9 cases accounting for 27.27% of total number of cases. The youngest age was 19 years and the oldest age was 40 years

Table 2: Distribution of cases according to parity.

Parity	No. of cases	%
Nulliparity	6	18.2
Multiparity	27	81.8

27 women with ectopic pregnancy were multiparous, accounting for 81.8%. In 6 out of 33 patients, ectopic pregnancy was the first conception

and expert health professionals as well as delayed arrival to the health facility. Despite advances in the technology to diagnose ectopic pregnancy at an early stage, diagnostic dilemma still prevails due to varied presentation. The aim of this study is to see the trend of ectopic pregnancy in a tertiary hospital, demographic profile of such patients, identify the risk factors and morbidity.

METHODOLOGY

This observational retrospective study was carried out in Gandaki Medical College Teaching Hospital over a period of one years between May 1, 2019 to April 30, 2020. It is a tertiary care center which caters to patients from nearby districts and hospitals. The diagnosis of ectopic pregnancy was made mainly by history-taking, clinical physical examination, laboratory (urine pregnancy test/ serum beta HCG), and radiological (ultrasound) investigations. All ectopic pregnancy cases were identified from the gynecology ward and OT records and information on the socio-demographics, clinical presentations, intraoperative findings and outcome of surgery were all gathered and recorded in a predesigned proforma. The total number of deliveries during this period was obtained from the labour ward registers. Data were analyzed using descriptive statistics (Figure 1).

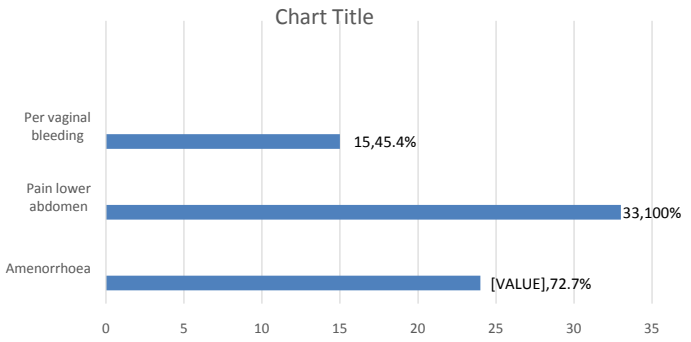

Figure 1: Clinical features

In present study, abdominal pain and amenorrhea was present in 100% and 72.7% cases respectively which represents the most common symptoms in a woman with ectopic pregnancy.

RESULTS

In the present study, which was conducted during a period of one year from May 1, 2019 to April 30, 2020 at Gandaki medical college and teaching hospital, Pokhara, the total number of deliveries was 2086 and the total confirmed cases of ectopic pregnancy was 33, giving an incidence of 1.5% or 15 per 1000 deliveries (Tables 3-7).

Table3: Duration of amenorrhea.

Duration (weeks)	No. of cases	%
Absent	9	27.27
<6	2	6.06
6-8	10	30.3
>8	12	36.36

Most cases of ectopic pregnancy were diagnosed at a gestational age >8 weeks (36.3%). 9 cases didn't give any history of amenorrhea

Table 4: Distribution of cases according to risk factor.

Risk factors	No. of cases	%
Previous abortion	5	15.15
PID	2	6.06
Tubal surgery/ previous ectopic	10	30.3
	1	3.03
LSCS	4	12.12
MTP intake	8	24.24
Ovulation induction	2	6.06
Emergency contraception	6	18.2
None	5	15.15

Table 4: shows that 8 patients (42%) had history of MTP intake, 6 patients (18.2%) gave history of use of emergency contraception while only one patient gave history of previous tubal surgery. No risk factor could be elucidated in 5 patients (15.15%).

Table 5: Site of ectopic pregnancy.

Sites	Number	Percentage (%)
Ampulla	19	57.57
Isthmic	10	30.3
Interstitial	3	9.1
Ovarian	1	3.03
None	5	15.15

The most common site of ectopic pregnancy was ampulla which was present in 19 cases (57.57%). Least common site was the ovarian which was present in only one case (3.03%).

Table 6: Management of ectopic pregnancy.

Treatment	Number	Percentage (%)
Unilateral salphingectomy	26	78.77
Unilateral Salphingo-oopherectomy	6	18.2
Laparoscopic salphingectomy	1	3.03

All cases of ectopic pregnancies were managed successfully with surgery. 26 cases (78.77%) were treated with unilateral salphingectomy while 6 cases required unilateral salphingo-oopherectomy. One case was managed with laparoscopy.

Table 7: Hemoperitoneum.

Hemoperitoneum(ml)	Number	Percentage (%)
<150	3	9.1
150-1000	5	15.15
>1000	25	75.75

25 patients (75.75%) had hemoperitneum of more than 1000 ml whereas 5 patients (15.15%) had blood loss between 150-1000 ml. Only 9.1% of total patients had hemoperitoneum less than 150 ml.

DISCUSSION

The incidence of ectopic pregnancy in this present study was 15 per 1000 deliveries which is comparable to the reported incidence in various publications.

Most common age group in this study was 21-25 years and 31- 35 years. This could be because women are most fertile in the age group 21-25 years. Kaveri Shaw et al.in their study found that the common age group for ectopic pregnancy was 31-35 years similar to this study [9]. It could be explained by the fact that the incidence of pelvic inflammatory diseases and medical termination of pregnancies is high in this age group.

The present study depicts that the incidence was higher in multigravida (81.8%) as compared to the primigravida (18.2%) with similar results in study carried out by Poonam et al. [10]. The higher incidence of ectopic in multigravida is probably due to frequent use of emergency pills, previous abortions and infection.

36.36% of ectopic pregnancies had gestational age more than 8 weeks in contrast to study done by Manthan Patel which showed the frequent occurrence of ectopic pregnancies between 6-8 weeks [11].In our setting, most women don't attend the antenatal clinic once pregnancy is diagnosed, so the presentation is rather late with rupture as an outcome and consequent maternal morbidity.

Medical termination of pregnancy and emergency contraception were the major risk factors associated with ectopic pregnancy in the present study. Eight cases (24.24%) of ectopic pregnancy gave history of medical abortion while 6 cases (18.2%) gave history of emergency contraception. Similar result noting abortion as the most common risk factor was given by Shukla et al. [12]. The easy availability of abortifacient drugs as well as unawareness regarding family planning measures make women susceptible to ruptured ectopic pregnancy in our setting. 15.15% of cases didn't have obvious cause for ectopic pregnancy.

All the patients in the study (100%) had abdominal pain as a major symptom which were of varying intensity and it was one of the reasons for attendance to the hospital. The next frequent symptom was amenorrhea which was present in 72.7% of the patients. Vaginal bleeding was present in 45.4% of the total cases. All these findings were consistent with the study done by Nahar et al. [13].

The incidence of tubal pregnancy was in 96.9% of the total cases as quoted in most of the literature. Ampulla of the fallopian tube was commonly involved in 13 (58.9%) cases in the present study which is same as studies fromKhaleeque et al. [14]. It was followed by isthmus that was involved in 30.3% of the cases. Ovarian ectopic was present in 3.03% of the cases. The incidence of isthmic and ovarian ectopic coincided with study by Kaveri Shaw et al. [9].

Surgery was the mainstay of management in all the cases (100%) partly because most patients presented with rupture and partly because surgery still remains the method of choice in a developing country like Nepal. The method of choice in a developing country like Nepal. The most commonly done surgery in 78.77% of patients was open unilateral salphingectomy which was similar to study done by Yakasai et al.19 (89.10%) [15]. Salphingo-oopherectomy was required in 18.2% of case which was more in comparison to study done by Rajendra Wakankar and Kshama Kedar [16]. One patient was managed successfully with laparoscopic salpingectomy [17].

75.75% of cases had hemoperitoneum of more than 1000 ml intraoperatively suggesting that majority of patients presented with rupture. These patients required blood transfusion intraoperatively as well as postoperatively. Kaveri Shaw et al. in their study noted that 50%, 36.36% and 13.63%of the total cases had hemoperitoneum between 101-500ml, 1000ml or less and less than 100ml respectively [9].

CONCLUSION

Worldwide, ectopic pregnancy continues to be a significant health problem. Unsupervised use of abortifacient drugs and emergency contraceptive pills has resulted in a significant surge in the incidence of ectopic pregnancy. Also, it remains one of the major reasons for a reproductive aged woman undergoing surgery in her lifetime. So the general public should be made aware about risk factors of ectopic pregnancy and counselled regarding early care seeking behavior as soon as pregnancy is diagnosed.

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