

A Profile of Patients with Molar Pregnancy

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Aims: This study was done to determine the incidence, modes of presentation and prognosis of molar pregnancy at B. P. Koirala Institute of Health Sciences.

Methods: This was a prospective study done among patients with molar pregnancy admitted at BPKIHS from January 2010 to January 2011. The study was conducted after ethical clearance from Institutional Ethical Review Board of BPKIHS. Written informed consent was taken for enrollment in the study. Baseline information like age, address, race and patient's presenting complaints, period of gestation and serial serum beta human chorionic gonadotropin (β hCG) were collected and analyzed after entering in excel sheet.

Results: Total 48 cases of molar pregnancy were diagnosed during the study period. The incidence of molar pregnancy was found to be 5.58 per 1000 deliveries. The most common mode of presentation was per vaginal bleeding i.e. in 64.58% of cases. Majority of the patients were in the age group of 20-34 years (62.5%). Mean time for normalization of β hCG after suction evacuation was 10.19 weeks.

Conclusions: Molar pregnancy is a pregnancy related problem which most commonly presents with per vaginal bleeding during first and second trimester. Most of the patients are treated with suction and evacuation but some develop persistent gestational trophoblastic disease.

Keywords: β hCG; molar pregnancy.

INTRODUCTION

Hydatidiform moles are abnormal conceptions with incidence of 1/500–1000 pregnancies. Complete moles are usually diploid and developmentally androgenic, demonstrating hydropic chorionic villi and trophoblastic hyperplasia. Partial moles are usually paternally derived triploid conceptions in which embryonic development occurs in association with trophoblastic hyperplasia.¹ Partial hydatidiform moles are characterized by chorionic villi of varying size with focal hydatidiform swelling, cavitations, trophoblastic hyperplasia, marked villous scalloping and prominent stromal trophoblastic inclusions. Complete hydatidiform moles exhibit characteristic swelling and trophoblastic hyperplasia and have propensity to malignancy.²

The classic presenting symptoms and findings of hydatidiform mole include vaginal bleeding, anemia, excessive uterine enlargement, hyperemesis gravidarum, hyperthyroidism, trophoblastic emboli and theca lutein cysts associated with remarkably elevated β hCG titres.^{3,4}

After evacuation it should be ensured that β hCG levels remain undetectable. If patients want to conceive, they are generally advised not to become pregnant again until after the first six months of follow up and are given reliable contraception. After spontaneous resolution, the patient is subsequently seen monthly for six months.⁵⁻⁷

Most gestational trophoblastic neoplasia (GTN) cases are diagnosed clinically using hormonal evidence of persistent trophoblastic tissue. Tissue is infrequently available for pathologic diagnosis. So GTN is diagnosed on the basis of rising β hCG values or a persistent plateau of β hCG values for at least three weeks.⁸⁻¹³

Since BPKIHS is a tertiary care centre of Eastern Nepal, patients coming here represent the population of Eastern Nepal. The clinical profile of patients with molar pregnancy has not been studied in this area in past, this study was conducted to find out the the clinico-epidemiological profile of molar pregnancy in Eastern Nepal.

METHODS

This was a prospective study done among patients with molar pregnancy admitted at BPKIHS from January 2010 to January 2011. The study was

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conducted after ethical clearance from Institutional Ethical Review Board of BPKIHS. Written informed consent was taken for enrollment in the study. All cases of molar pregnancy attending Department of Obstetrics and Gynecology, BPKIHS from January 2010 to January 2011 were included in the study. Patients diagnosed on clinical or radiological or histopathology examinations were included. All of them were followed up with serum β hCG level at weekly interval. Once β hCG was normal for three consecutive values, further follow up at monthly interval was done for six months. Those cases which could not be followed up for 6 months were not included in study. Data of the patients regarding personal details, presenting complaint and examination findings was entered in excel sheet. Outcome of treatment was recorded and findings at follow up visit were recorded. Time taken for β hCG level to normalize was recorded. Data was analyzed by SPSS version 11.0 to determine the incidence, common modes of presentation, distribution among various age and ethnic groups and prognosis of patients using percentage, mean and range.

RESULTS

A total of 48 patients were taken for the study. The incidence of molar pregnancy was found to be 5.58 per 1000 deliveries (1/179 deliveries). Majority of the patients were in the age group of 20 to 34 years (n=30, 62.5%). The mean age of the patients was 25.04 years, the youngest was 17 and the oldest was 48 years of age. Majority of patients belonged to Mongolian ethnic group (n=26, 54.2%). (Table 1)

Table 1. Socio demographic variables (n=48).

Characteristics	Number	Percentage
Age group in years		
<20	12	25
20-35	30	62.5
>35	6	12.5
Mean		25.04
Occupation		
Housewife	45	93.75
Shopkeeper	2	4.17
Teacher	1	2.08
Address		
Sunsari	22	45.83
Dhankutta	9	18.75
Jhapa	9	18.75
Others	8	16.67
Race		
Mongolian	26	54.2

Aryan	22	45.8
Religion		
Hindu	41	85.42
Buddhist	4	8.33
Christian	3	6.25

The most common presenting complaint was vaginal bleeding (n=31, 64.58%). One patient (2.08%) had history of passage of grape like vesicles and 10 (20.83%) patients were asymptomatic and were diagnosed to have molar pregnancy during routine antenatal check up by ultrasonography. Half of the patients were primigravida and 12.5% of patients had history of irregular cycles. Mean gestational age at time of diagnosis was 12.92 weeks (range 8-26 weeks). 14.58 % of patients had history of OCP use (Table 2).

Table 2. Modes of Presentation (n=48).

	Number of patients	Percentage
Presenting complaint		
Vaginal bleeding	31	64.58
Vomiting	2	4.17
Passage of grape like vesicles	1	2.08
Pain abdomen	2	4.17
Fever	2	4.17
None	10	20.83
Obstetric		
Primigravida	23	47.91
Multigravida	25	42.09
Gestational age		
≤13wks	26	54.17
>13wks	22	45.83

Nine (18.75%) patients were anemic at the time of presentation (Table 3). On histopathological examination, 19 (39.58%) patients had complete hydatidiform mole and 29(60.42%) had partial hydatidiform mole. During follow up, 18 (48.64%) patients had normalization of β hCG within eight weeks of suction evacuation. Mean time taken for normalization of β hCG was 10.14 weeks (Table 4).

Table 3. Lab Investigations (n=48).

	Categories	No. of patients	%
Hemoglobin	<10g/dl	9	18.75
	≥10g/dl	39	81.25
Histopathology	complete mole	19	39.58
	partial mole	29	60.42

In two patients (5.41%) β hCG was persistently rising and were diagnosed to have persistent trophoblastic

disease and were given single agent chemotherapy (Methotrexate and Folinic acid) and responded to treatment.

Table 4. β hCG follow up (n=48).

Normalisation of β hCG (weeks)	Number of patients (%)
≤ 8	28(58.33%)
>8	20(41.67%)
Mean	10.19 weeks

DISCUSSION

In this study, the incidence of molar pregnancy was found to be 5.58 per 1000 deliveries which is less than that of the study done in Institute of Medicine, Kathmandu, Nepal by Soma H. et al¹⁴ in which incidence was found to be 8.04 per 1000 deliveries. But the incidence in this study is more than that of the study done in Northern England by Tham et al¹⁵ and Paropakar Maternity and Women's hospital, Kathmandu by Thapa et al¹⁶ in which it was found to be one per 771 and one per 276 live births respectively.

In this study most of the patients of molar pregnancy were of age group 20 to 34 years which is not consistent with the study done by Tham et al¹⁵ in Northern England in which molar pregnancy was common among extremes of age that is, below 15 years and above 35 years. Most of the patients were Mongolian (54.2%) which may be due to predominance of this ethnic group in this part of country. The most common mode of presentation was per vaginal bleeding (64.58%) in this study which is similar (77.0%) to the study done by Lindholm et al.¹⁷

The mean gestational age at the time of diagnosis was found to be 12.92 weeks which is similar to the

finding of the study done by Soto-Wright et al¹⁸ (11.8 weeks). The uterine size was more than the gestational age in 37.58% in this study which is similar to Soto-Wright et al¹⁸ (28.0%). In this study, 18.75 % patients were anemic at the time of presentation which is significantly more than the 4% rate shown by Soto-Wright et al.¹⁸

In this study, 39.58% patients had complete moles and 60.42% had partial moles on histopathological examination which is similar to the study by Giwa-Osagie et al¹⁹ in which 39.0% had complete moles and 61.0% had partial moles. The mean time for β hCG to become normal was 10.19 weeks which is slightly more than the 8 weeks shown in the study done by Bagshawe et al³. In two patients (5.41%) β hCG was persistently rising and were diagnosed to have persistent trophoblastic disease and were given single agent chemotherapy (Methotrexate and Folinic acid) and responded to treatment.

CONCLUSIONS

Molar pregnancy is a pregnancy related problem which most commonly presents with per vaginal bleeding during first and second trimester. Early ultrasonography has detected most of the molar pregnancy earlier reducing the burden of complications due to late presentation. Most of the patients are treated with suction and evacuation but some develop persistent gestational trophoblastic disease. So follow up with serum β hCG at regular intervals should be done in all cases.

DISCLOSURE

The authors report no conflicts of interest in this work.

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