

# The Demographics of Molar Pregnancies in BPKIHS

Koirala A,<sup>1</sup> Khatiwada P,<sup>2</sup> Giri A,<sup>2</sup> Kandel P,<sup>1</sup> Regmi M,<sup>1</sup> Upreti D<sup>1</sup>

<sup>1</sup>Department of Obstetrics/Gynaecology

BPKIHS

Dharan, Nepal

<sup>2</sup>Richa Bajmaya Memorial Foundation

Kathmandu, Nepal

## Corresponding Author

Prashant Khatiwada

Richa Bajmaya Memorial Foundation

Kathmandu, Nepal

Email: prashant.khatiwada@gmail.com

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## ABSTRACT

This is an analysis of the incidence of molar pregnancies and those of complete and partial molar pregnancies across the reproductive age range for BP Koirala Institute of Health Sciences (BPKIHS) in the period 2010-2011.

Patients with molar pregnancies registered with BPKIHS from January 2008 to January 2010 were identified. The overall number of molar pregnancies registered was compared to the number of maternities (live births and still births) and total viable conceptions for this year. A retrospective study of 64 cases of molar pregnancies recorded at BPKIHS during the two year time was done. Medical records were reviewed. Incidence, clinical presentation and methods of diagnosis were studied.

During the study period, there were 37 complete moles, 23 partial moles, 1 persistent gestational trophoblastic tumor, 1 choriocarcinoma, and 2 invasive moles. The incidence of molar pregnancy was 3.94 per 1000 deliveries. Median distribution was at 22 years of age, and majority (67%) presented during early second trimester. Twenty one (32.8%) women were of blood group A positive and ten (15.6%) presented with severe form of anemia.

This study provides detailed data regarding the incidence of partial and complete molar pregnancies with increasing maternal age. It confirms the relation of molar pregnancy with age, and blood group. Complete mole had the highest incidence, affecting mostly younger age group, and usually in the first half of their pregnancy.

## KEY WORDS

*gestational trophoblastic disease, hydatiform mole, persistent gestational tumors*

## INTRODUCTION

Gestational trophoblastic disease (GTD) constitutes a spectrum of tumors and tumor like conditions characterized by proliferation of pregnancy associated trophoblastic tissue of progressive malignant potential.<sup>1,2</sup> It includes a spectrum of interrelated tumors including complete and partial hydatiform mole, placental site trophoblastic tumors (PSTT) and choriocarcinoma.<sup>3</sup>

The incidence of GTD varies significantly across the world with 0.4 per 1000 birth in United States of America to 12.5 per 1000 births in Taiwan.<sup>4</sup> In Nepal, records from different hospitals in Kathmandu valley have recorded its incidence as 5.1, 2.9, 2.8, and 4.1 per 1000 live births.<sup>5</sup>

Commonly affecting women in reproductive age group, with typical signs and symptoms has made GTD relatively easy for diagnosis. Modern facilities like ultrasonography (USG) and serum alpha-hCG, has helped further early diagnosis even before any signs and symptoms appear.<sup>6,7,8</sup>

This study presents the incidence of molar pregnancy, including its signs and symptoms in Terai belt of Nepal which constitute a sub-tropical climate and rural to sub-urban living standard.

## METHODS

This was a retrospective descriptive study conducted at BP Koirala Institute of Health Sciences (BPKIHS). Medical records from January 2008 to January 2010 were reviewed. The cases diagnosed and primarily treated as GTD during this period were included in the study. Sixty four Molar pregnancies were diagnosed and treated. Information on histopathological reports and follow up details were not available for all the cases, so these variables were not assessed in the study. All information gathered from hospital records was considered confidential. This study was approved by BPKIHS Ethics Committee.

Maternal age, gravidity, gestational period at the time of presentation, clinical presentation and diagnostic tool were noted for each of these cases. Statistical analysis was done with Microsoft Excel 2011 for Mac.

### RESULTS

During the study period of two year, included 37 complete moles, 23 partial moles, one persistent gestational trophoblastic tumor, one choriocarcinoma, and two invasive moles. Overall incidence of GTD was 3.94 per 1000 deliveries.

The median age of the patients was 22 years. Number patients with diagnosis of molar pregnancy were of the age range 18-35 years (84.4%). Out of 64 women, 43 (67%) of them presented to the hospital during second trimester of pregnancy, especially at or before 18 weeks of gestation. 39.1% of women were para two ladies (Table 2.). There were seven cases that had previous molar pregnancy.

**Table 1. Blood Group (n=64).**

Blood Group	Frequency
A +ve	21
AB +ve	5
B +ve	19
O +ve	19

**Table 2. Age wise distribution of presentation.**

Age Group	Frequency
Under 15 years	6
15 to 45 years	54
Above 45 years	4

**Table 3. Symptoms at presentation.**

Symptoms	Frequency
Amenorrhoea	47
P/V bleeding	58
Lower abdominal pain	31
Vomiting	17
B/L leg swelling	3
Fever	3

Twenty One (32.8%) of the ladies diagnosed were of blood group A+ve, followed by 19 (29.7%) of ladies with equal representation from B+ve and O+ve. The median haemoglobin level was 10.3 mg/dl at the time of diagnosis, with 58 (90.6%), women complaining of vaginal bleeding as a chief symptom during presentation. Ten (15.6%) women had severe form of anemia, and 30 (46.8%) with mild to moderate form of anemia (Table 1.). Other complains included lower abdomen pain 31 (48.4%); Excessive vomiting to 17 (26.6%) women. Three complained of bilateral leg swelling, and four presented with fever

As basic investigation, ultrasonography abdomen was done in all patients. Chest X-ray was not carried out, as none of the patients showed any pulmonary features, and hCG was done in only 34 (53.12%). As a primary mode of management, 55 (85.9%) had suction and evacuation and four had cervical dilatation and curettage (Table 3). One woman had profuse bleeding during evacuation of uterus, for which total abdominal hysterectomy (TAH) was done. All the patients were on post-operative prophylactic antibiotic. Of the total 64 women treated for molar pregnancy, seven were recurrence.

### DISCUSSION

The study reported an incidence of molar pregnancy at 3.94 per 1000 deliveries, being similar to reports from Kathmandu based hospitals with varying figures from 2.8 to 5.1 per 1000 deliveries.<sup>3</sup> The study found highest incidence of molar pregnancy among 20-24 years of age group, in consensus with another studies from Kathmandu, and a figure of 0.4 in the US.<sup>4,5</sup> Diagnosis of complete mole is the most common cause of molar pregnancies is parallel to the other studies in Nepal.<sup>5,6</sup>

The median age prevalence was found at 22 years, which compared to Nigerian population was found at 30 years or more.<sup>9</sup> In Nepal, Thapa et al reported this age group at 29 years (80%) and below, and Acharya observed at 35 years and below (87.5%).<sup>5,6</sup> However, with limited data, no significant relation was found between age group and prevalence of GTD. The study finds higher incidence of molar pregnancy among para 2 women, which is a different from other studies in Nepal, with a study published from Kathmandu in January 2010 reporting higher incidence among primi gravida (36.7%). Other studies claim that there is no clear relation between gravida and parity and GTD.<sup>10,11</sup> Although a Nigerian study reports that risk to GTD increases with parity, especially parity four and above.<sup>12</sup>

The study found vaginal bleeding, lower abdominal pain and excessive vomiting as the most common symptoms. This is in line with most other studies.<sup>5,6,7</sup> Other non classical presenting features such as preeclampsia before 24 weeks of gestation; and abortion, were not present in our study. Anemia was present among 63.4% of women and 60% of them required blood transfusion; similar to other studies.<sup>5,6</sup> This may be contributed to the late presentation, mostly in second trimester. Literature supports that early diagnosis in first trimester reduces the prevalence of Anemia.<sup>10</sup> Anemia was found only among 15.5% in the study conducted at King Fahad Hospital, 1998.<sup>9</sup>

In the study, there was higher incidence of molar pregnancy among women with Blood Group A+ve. This is in accordance with present literature works.<sup>10</sup> Suction and evacuation is considered the gold standard procedure to terminate molar pregnancy. In our study, (55) 85.9% women with mole had suction and evacuation.<sup>3</sup>

There were some limitations to this study. The data was collected from hospital records, and there was no accessibility to the patients. Some information such as husband's blood group, follow up treatment was not properly recorded.

## CONCLUSION

Most common form of GTD is found to be complete molar pregnancy. Age, parity and gestational age could have causal relationship with molar pregnancy. Most common clinical features being vaginal bleeding, lower abdominal pain and excessive vomiting. Blood Group A+ve, O+ve, and B+ve were more commonly affected.

## DISCLAIMER

Study methods and model is based on research study by Thapa K et al done in Kathmandu (2010), however, the present study was done in BPKIHS, Dharan, and bears no other association with afore mentioned team or their study.<sup>5</sup>

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