

# Incidence of Molar Pregnancies at D. G. Khan Hospital, Dera Ghazi Khan

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## ABSTRACT

**Aim:** To determine the incidence of molar pregnancies at D. G. Khan Hospital, Dera Ghazi Khan.

**Methodology:** This descriptive study was conducted at Dera Ghazi Khan Hospital, Dera Ghazi Khan from March 2012 to December 2012. Serum  $\beta$ -HCG level and histopathological examination was performed. Symptoms of all the patients were noted.

**Results:** Total 52 cases were diagnosed to have GTD, with incidence of 2.4/1000 pregnancies, 2.5/1000 deliveries and 2.6/1000 live births. Mean age of patients was  $21.6 \pm 2.9$  years. Majority of the patients belonged to age group 15-20 years (51.9%). Amenorrhea was the commonest symptom seen i.e. 51(98.1%) and majority (59.6%) of the patients had pre evacuation  $\beta$ -HCG values between 1,00,000-10,00,000 IU/L. Patients with Partial hydatidiform mole (PHM) were 28(53.8%) and with Complete hydatidiform mole (CHM) were 23(44.2%).

**Conclusion:** Most of the patients with molar pregnancy were present in 15-20 years age group and amenorrhea was the most common symptom. Majority of the patients had pre evacuation  $\beta$ -HCG values between 1,00,000-10,00,000 IU/L.

**Keywords:** Hydatidiform mole, Gestational trophoblastic disease,  $\beta$ -HCG.

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## INTRODUCTION

Gestational trophoblastic disease (GTD) includes a series of disorders that are characterized by an abnormal proliferation of trophoblastic tissue with varying tendency to spontaneous remission, local invasion and metastasis. Incidence rate may be based on the total number of pregnancies, deliveries or live births<sup>1</sup>. Hydatidiform mole has been diagnosed at younger gestational age in the past 10 years owing to the widespread use of routine first-trimester ultrasound detection and ultrasound investigation of threatened miscarriage. High number of complete hydatidiform mole patients are diagnosed coincidentally at routine first trimester ultrasound examination without any classical symptoms. The clinical presentation of partial HM is less marked, with fewer clinical symptoms than complete moles. The majority of cases can be cured by simple surgical intervention. Those cases requiring chemotherapy are generally cured with very low toxicity regimen. Unlike other gynaecological malignancies, fertility can be preserved and normal pregnancy outcome anticipated. The curability of this condition is a milestone of success in the history of modern

medicine<sup>2</sup>. Gestational Trophoblastic Neoplasia (GTN) is highly curable, yet there are many patients succumbing to GTN in our country due to lack of proper organised follow up programmes. It is important to have the regional registries for the proper understanding of this unique malignancy. This will help making decisions and optimizing management and preventing treatment failure<sup>3</sup>. Regular monitoring is essential to ensure full regression of disease. However, a lengthy timeframe for follow-up may result in poor compliance with increased number of defaulters. Women are highly recommended to continue with follow-up for up to 6 months to enable detection of relapse or persistent gestational trophoblastic disease (PGTD)<sup>4</sup>.

## METHODOLOGY

This descriptive study was conducted at D. G. Khan Hospital, Dera Ghazi Khan from March 2012 to December 2012. Written consent was also taken from all patients. Women diagnosed with hydatidiform mole clinically and with ultrasound were included in this study. Demographic data of the patients was taken. Blood sample was taken from every patient for serum  $\beta$ -HCG. This test was performed on Beckman Coulter by immunofluorescent technique. As a primary management, suction and evacuation was done for all patients, followed by gentle curettage. Oxytocin infusion started at the end of the evacuation to minimize bleeding. The samples obtained were sent for histopathological examination.

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**RESULTS**

The detail of results is given in tables 1, 2, 3 and 4. During the study period, there were 21,696 pregnancies, 20,853 deliveries and 20,385 live births in Dera Ghazi Khan Hospital, Dera Ghazi Khan. Total 52 cases were diagnosed to have GTD, giving an incidence of 2.4/1000 pregnancies, 2.5/1000 deliveries and 2.6/1000 live births. Majority (59.6%) of the patients had pre evacuation  $\beta$ -HCG value between 1,00,000-10,00,000 IU/L. 36.5% of the patients had  $\beta$ -HCG values between 10,000-1,00,000. Out of 52 cases, 28(53.8%) were PHM giving incidence of 1.3/1,000 deliveries, 23(44.2%) were CHM with incidence of 1.1/1,000 deliveries.

Table 1: Age distribution

Age (yrs)	n	%age
15-20	27	51.9
21-25	20	38.5
26-30	5	9.6
> 30	0	0
Total	52	100

Table 2: Presenting symptoms

Clinical features	n	%age
Amenorrhea	51	98.1
Bleeding per vagina	34	65.4
Vomiting	5	9.6
Pain abdomen	3	5.8
Passage of grape like vesicles	1	1.9
Headache	1	1.9
Hypertension	1	1.9
No complaints	12	23.1

Table 3: Baseline  $\beta$ -HCG Levels

Baseline $\beta$ -HCG (IU/L)	n	%age
1000 – < 10,000	0	0
10,000 – <1,00,000	19	36.5
1,00,000 – <10,00,000	31	59.6
$\geq$ 10,00,000	02	3.9

Table 4: Histopathology Diagnosis

Histopathology	n	%age
Partial hydatidiform mole (PHM)	28	53.8
Complete hydatidiform mole (CHM)	23	44.2
Invasive mole	1	1.9
Total	52	100

**DISCUSSION**

There is a wide variation in the epidemiology of molar pregnancy worldwide<sup>6</sup>. Possible ethnic, racial, genetic or cultural differences have not been attributed to an increased incidence of molar pregnancy<sup>7</sup>. The incidence of GTD in the present study is 2.4/1000 pregnancies, 2.5/1000 deliveries and 2.6/1000 live births. This is consistent with rates

found in previous studies. In a study in India by Kumar N et al<sup>5</sup> showed a lower incidence of 1.31/1000 live births and in the same year a study by Sekharan P<sup>8</sup>, showed a very high incidence of 5/1000 deliveries. The findings of the present study concur with many others that Asian women are more likely to develop molar pregnancies than non-Asians when compared with historical data.<sup>9</sup> In the present study, majority (51.9%) of patients belonged to age group 15-20 years. Mean age of the patients was 21.6 $\pm$ 2.9 years with the age ranging from 18 to 30 years. In a study by Kumar N et al<sup>5</sup> majority of their patients (66%) had age group of 20-25 years with the mean age 24.6 $\pm$ 4.4 years.

The incidence of gestational trophoblastic disease for women under 20 was 1.58/1000 live births falling to 1.18/1000 in the age group 30–34 and rising to 5.49/1000 in the >40 years age group<sup>9</sup>. In the present study, 98.1% had presented with history of amenorrhea. Vaginal bleeding was a symptom in 65.4% of patients. Fatima et al<sup>10</sup> reported bleeding per vaginum as commonest symptom seen in 94.2%. This was also reported as the commonest symptom by a study conducted in China as 83.2% of the patients with hydatidiform mole<sup>11</sup>. However, contrastingly a clinical study from Dubai reported incidence of vaginal bleeding only in 29% of patients<sup>2</sup>. The classic symptom of passage of grape like vesicles per vaginum was seen in 60% of patients in a study by Ocheke AN et al<sup>12</sup> which was seen in only 1(1.9%) patient in our study. Routine antenatal USG detected symptomless GTD in 6.5% of study population by Kumar N et al<sup>5</sup>. Tasneem et al<sup>2</sup> detected 51% with no symptoms on early pregnancy scan. In our study, USG detected 23.1% of patients without symptom. This may be because of the early diagnosis during routine antenatal scans in first trimester, as majority of patients in the current study presented during first trimester. In this study, histopathology examination of 53.8% of the patients showed partial mole, and in 44.2% showed complete mole. These proportions were consistent with the study from Malaysia in which 46.1% have CHM compared to 53.9% having PHM<sup>4</sup>. Lybol C et al<sup>1</sup> observed 30.2% having CHM and 44.5% having PHM.

**CONCLUSION**

Most of the patients with molar pregnancy were present in 15-20 years of age group and amenorrhea was the most common symptom. Majority of the patients had pre evacuation  $\beta$ -HCG values between 1,00,000-10,00,000 IU/L.

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