

Original Article



Evaluation of molar pregnancy in Rajshahi Medical College Hospital

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Abstract

Background: A molar pregnancy is also known as hydatidiform mole which is a benign tumour that develops in the uterus. It begins when an egg is fertilized but normal viable pregnancy not occurs, rather than the placenta develops into an abnormal mass of cyst. In all cases of molar pregnancy observation is essential to detect the reawakening of chorionic activity. **Objectives:** The aim of the study was to explore the incidence, clinical presentation, management and outcome of the molar pregnancy in our hospital. **Materials & Methods:** This prospective study was conducted in Rajshahi Medical College Hospital, Rajshahi, Bangladesh over a period of one year from July 2016 to June 2017. All pregnant women who were diagnosed as molar pregnancy were included in the study. **Results:** In this study the incidence of molar pregnancy was 5.3 per 1,000 deliveries that was 1 in 188 deliveries. Among the patients 54.7% were between (23 - 27 years) age group, 81.2% cases were multiparous and 58.4% patients belonged to low socioeconomic status. The prevalent blood group was A and constitute 56.6%. About 62.2% patient presented with amenorrhoea and abnormal vaginal bleeding. 45.3% admitted between (12-16) weeks of gestation. Most of the patients 58.4% were managed by suction and evacuation. Among all the cases 92.4% were complete mole and only 16.9% came for follow up. **Conclusion:** Results from this study showed that a small portion of patient of molar pregnancy came for routine follow up. To achieve high cure rate and low chemotherapy rate an effective registration programme and treatment protocol should be established.

Keywords: Hydatidiform mole, Molar pregnancy.

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Introduction

A molar pregnancy is also known as hydatidiform mole which is a benign tumour that develops in the uterus. It begins when an egg is fertilized but normal viable pregnancy not occurs, rather than the placenta develops into an abnormal mass of cyst.¹ A normal pregnancy contains 46 chromosomes half of it comes from mother and rest half from the father. Depending on the balance of chromosome in the egg, molar pregnancy is divided into two main subtype :- (1) complete mole (2) partial mole.² A partial mole contains 69 chromosome instead of normal 46, one third of the chromosome (23) comes from the maternal side and others (46) from the paternal side.³ It consists of an abnormal embryo and some normal placental tissue. As the embryo is malformed it cannot survive.⁴ The egg

of complete mole contains only 23 paternal chromosome, here amniotic sac or embryo is absent. As soon as the egg is fertilized by the sperm trophoblastic cell behave abnormally and this results in a mass of abnormal cells that can grow fluid filled sac (cysts) with the appearance of white grapes.⁵ The exact etiology is yet unknown but it seems to be related with ovular defect, abnormality within the uterus or nutritional deficiencies. Several epidemiological risk factors are identified for the development of molar pregnancy; the most important one is geographical factor. The highest incidence is seen in Philippines being 1 in 80 pregnancy and lowest in European countries 1 in 752 cases. Incidence in USA being about 1 in 2000 and in our neighbor country India it is about 1 in 400 pregnancies.⁶

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Age of the patient also have some association with development of molar pregnancy. Teenager and women over 35 years has greater risk for development of molar pregnancy and it rises to 10 fold after 40 years.⁷ Multiparity is another risk factor for development of molar pregnancy in undeveloped country.⁸ Blood group also plays some part. If a woman of blood group 'A' mated with the man of same blood group is at least risk and the woman with blood group 'AB' is at greatest risk. Patient of hydatidiform mole presented with nausea, vomiting which may be confused with signs of early pregnancy or hyperemesis gravidarum.⁹ Among the patients, 2% presented with breathlessness due to pulmonary embolization of trophoblastic cells and another 2% patient presented with thyrotoxic features like tremor, tachycardia. In one third of the cases pre eclampsia developed earlier than usual.⁷ About 50% patients have a uterine size greater than expected gestational age but in 33% uterus may be smaller than the expected size. Multiple theca lutean cysts are seen in (15-30%) patients. Suction evacuation and curettage is the preferred choice for the treatment irrespective of uterine size.

In all cases of molar pregnancy observation is essential to detect the reawakening of chorionic activity even though the mole has been removed by hysterectomy.⁹ Follow up is done with serial beta HCG estimation, gynaecological examination and chest radiography. Approximately 70% patients develop a normal beta HCG within 8 weeks post evacuation and 15% demonstrate continuous decline in titre and ultimately achieve normal titre without treatment. Rest of the 15% patient who have elevated titre at 8 weeks after evacuation demonstrate rising titre or platur.

Materials & Methods

This prospective study was conducted in Rajshahi Medical College Hospital from July 2016 to June 2017. The clinical records of molar patients regarding age of the patient, parity, gestational age, mode of presentation, clinical findings, investigations, management and histopathology were collected. During the study period there were 53 cases of molar pregnancy out of 10,026 deliveries. Investigations include complete blood count, blood grouping and Rh typing, beta HCG level, Ultrasonography and chest x-ray. Hydatidiform mole was confirmed by histopathological examination of the specimen.

Results

Table I: Distribution of cases according to age (n = 53)

Age	No of cases (53)	%
18- 22 years	21	54.7
23- 27 years	29	39.6
28- 32 years	02	3.77
33-37 years	01	1.88

Table I shows among the patients 54.7% (29) were between (23 - 27 years) age group and 39.6% (21) were between (18 - 22years) age group.

Table II: Distribution of cases according to parity (n = 53)

Gravida	No of cases (53)	%
1 st	10	18.8
2 nd	37	69.8
3 rd	04	7.54
4 th	01	1.9
5 th	01	1.9

Table II shows most of the cases were multipara 81.2%.

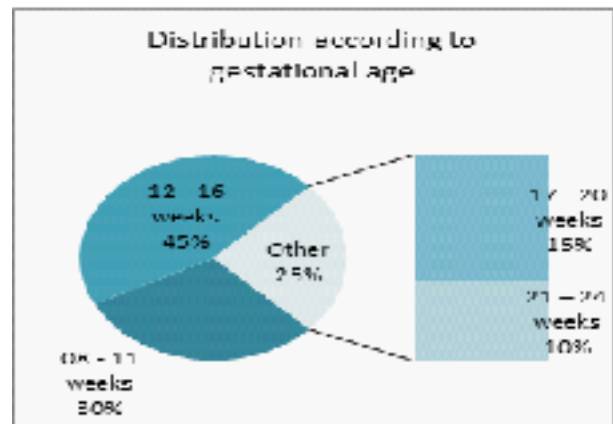


Figure 1: Distribution according to gestational age

Figure 1 shows maximum 45.3% (24) were admitted between 12 -16 weeks of gestation.

Table III: Distribution of cases according to blood group (n = 53)

Blood group	No of cases (53)	%
A	30	56.6
O	17	32.07
B	04	7.54
AB	02	3.77

Table III shows in this study most prevalent blood group is A (56.6%).

Table IV: Distribution of cases according to clinical presentation (n = 53)

Presenting symptoms	No of cases (53)	%
Amenorrhoea with vaginal bleeding	33	62.2
Amenorrhoea with vaginal bleeding and passage of vesicle	09	17
Amenorrhoea with lower abdominal pain	07	13.2
Amenorrhoea with Hyperemesis gravidarum	02	3.8
Amenorrhoea was the only symptom diagnosed by USG.	02	3.8

Table IV shows Patients were presented with amenorrhoea common with vaginal bleeding 62.2% (33), 17% (09) patients with passage of vesicle, 13.2% (07) patients presented with lower abdominal pain.

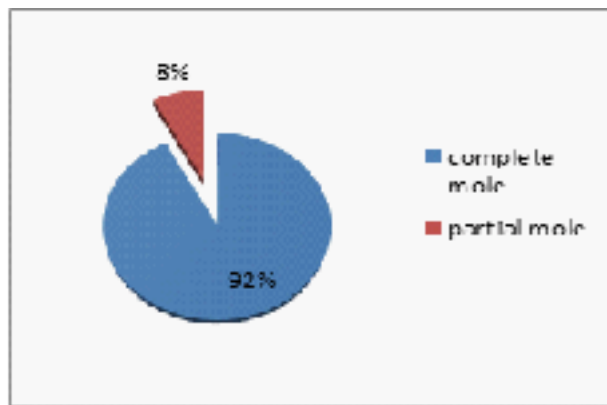


Figure 2: Distribution according type of molarity

Figure 2 shows most of the cases were complete mole 49 (92.4%) and only 04 (7.6%) cases were partial mole.

Discussion

In the present study the incidence of molar pregnancy was 5.3 per 1,000 deliveries that is 1 in 188 deliveries. A study by Aghababaii et al.¹⁰ in Iran showed the incidence was 3.70 per 1,000 deliveries that is 1 in 27.1 deliveries. Dinesh et al.¹¹ in his study showed the incidence of molar pregnancy was 4.56 per 1000 deliveries that is 1 in 219 deliveries. Study by Akhter¹² in 1978-1980 at SSMC and Mitford Hospital showed that incidence of molar pregnancy was 1 in 144 deliveries that are 6.9 per thousand.⁸ The obtained incidence rate in our study was consistent with other studies except the study of Aghababaii S et al.¹⁰

In the study maximum no of patients were between (23 - 27) years age group. Study by Nahar¹³ (2005 - 2006) at FMCH & BSMMU showed that 64% patients were in 20-29 yrs age group.⁶ A study by Khatoon RA¹⁴ in 1993 at DMCH showed that 63.75% patients were in 21-30 yrs age group.⁷ Another study of 287 patients was done in Pusan, Korea¹⁵ which showed highest number patients (70%) were below 30 yrs of age. The findings of the study is comparable of the previous observations In this study, 81.2% patients were multigravida and 18.8% patients were primigravida. The study of 310 cases by Mungan et al.¹⁶ (1996) showed that in 60% cases hydatidiform mole was associated with multiparity. Dinesh et al.¹¹ in his study showed that 70% patient were multigravida. The studies are consistent with the previous studies. In the study 58.4% patients belonged from lower class. Dinesh kumar et al.¹¹ in his study showed that 86% patients were from lower class. Our study is consistent with this study. Out of 53 patients 45.3% patients present between 12-16 weeks of pregnancy. In the study of Khan et al¹⁷ in FMCH 46% patients present between 12-16 weeks of pregnancy. In the study of Nahar¹³ 40% patients present with 12-16 weeks gestation. Our study is consistent with this study. 30.1% patients present between 08-11 weeks gestation. In the study of Gold Stein & Berkowitz,¹⁸ 22 97% patients presented with vaginal bleeding. Curry et al.¹⁹ and Kohoran²⁰ also noted a high incidence of vaginal bleeding in 80% and 94% patients with molar pregnancy respectively. Study by Nahar¹⁶ in FMCH &

BSMMU Hospital (2005-2006) showed abnormal vaginal bleeding and amenorrhea were the commonest (60%) complaints.⁵ According to Gold-Stein & Berkowitz¹⁵ (1994) the most common presenting symptom in patients was bleeding (97%).¹³ A study by Curry¹⁹ from North Carolina USA of 347 patients 89% of patients had abnormal bleeding.¹¹ In the study of Dinesh et al.¹¹ 80% patients present with vaginal bleeding. In this study (Table I) 62.2% patients presented with abnormal vaginal bleeding with amenorrhea which was consistent with the studies.

Uterine size was larger than gestational age in 45.3% of our patients. In the study of Berkowitz et al.¹⁵ 51% patients present with larger uterine size than gestational age. Uterine size was larger than dates in 46% and 38% of patients in the studies by Curry et al.^{19,21,22} and Kohran.²⁰ This study is consistent with those studies.

In the study 56.6% (30) patient had blood group A and 32.07% (17) women belonged to blood group O. Blood group B were in 7.54% and AB in 3.77%. 56.1% women were blood group A and 26.8% were blood group O in the study of Cheraghi and Hekmatnia.²¹ In the study of Nahar¹³ most of the patients with molar pregnancy had blood group A (32%). This study was consistent with those studies. Out of 53 cases 92.4% (49) cases were labeled as complete mole and 7.6% (04) cases were labelled as partial mole. Dinesh et al.¹¹ in his study of 37 cases of molar pregnancy reported that 91.9% had complete mole and 8.1% had partial mole. The frequency of complete moles were higher as compared to partial hydatidiform mole in both studies.

Conclusion

The product of conception from all abortion should be examined by naked eye-sieve and water. Doubtful cases should be sent for histopathology to exclude trophoblastic disease.

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