



Original Research Article

Analysis of Molar Pregnancy in a Tertiary Care Centre of Muzaffarpur, Bihar: A two years Retrospective Study

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Abstract

Objective: A Hydatidiform mole is characterized by a hydropic swelling of the chorionic villi and trophoblastic proliferation. It is classified as a complete hydatidiform mole and partial hydatidiform mole on the basis of histopathological features and karyotype. Women of both extreme of reproductive age are most vulnerable. Untreated molar pregnancies almost always cause uterine bleeding that varies spotting to profuse hemorrhage. This study was conducted to calculate incidence of molar pregnancy, associated demographic factors and to analyze the various aspects of molar pregnancy at our hospital.

Materials and Methods: A retrospective study was carried out for over a period of two years from April 2015 to March 2017 in the Department of Obstetrics and Gynecology at S. K. Medical College, Muzaffarpur, Bihar to calculate the incidence of molar pregnancy, to study the associated demographic factors and to analyze the various aspects of molar pregnancy at our hospital. All the relevant data were collected from hospital records and departmental registers. Collected data were computed and analyzed statistically.

Results: A total of 37 cases of molar pregnancies were recorded for the period of two years. During this study period, the total number of deliveries was 18,143. Hence the incidence of molar pregnancy in our study is 0.815 in 400 deliveries. 64.86% cases were of age group 20-30 years. Uterine size larger as compared to gestation age was observed in 78.37% cases. Serum β hCG level were between 50000-100000 in 59.46% of cases. 75.67% cases were presented with a gestational age of 10-20 weeks.

Conclusion: Early detection of high risk pregnancies and their prompt management and referral is necessary. Early detection by ultrasonography and serum β hCG value is necessary for proper management of molar pregnancies. Prophylactic chemotherapy is also of significance in management and to prevent further recurrence of molar pregnancy.

Keywords: Complete mole, Hemorrhage, Hydatidiform mole, Invasive mole, Partial mole.

Introduction

Hydatidiform moles are excessively edematous immature placentas.¹ Molar pregnancy include the benign complete hydatidiform mole and partial hydatidiform mole and the malignant invasive mole. An invasive mole is a hydatidiform mole that penetrates the muscular wall of the uterus (myometrium) and developed in about 20% of women after complete removal of mole by curettage. The risk of developing these in women with complete mole is increased if the uterus has become very large, the women is older than 40 years, the women has had GTD in the past. A complete mole has abnormal chorionic villi that vary in size and often hang in clusters from thin pedicles. In contrast, a partial mole pregnancy has focal and less advanced hydatidiform changes and contain some fetal tissue. Although both forms of moles usually fill the uterine cavity, they rarely may be tubal or other forms of ectopic pregnancy.² The highest incidence of hydatidiform mole per 1000 pregnancies is seen in South East Asia with rates ranging from 13 in Indonesia, 8 in Taiwan, 5 in Philippines and 3.8 in Japan.³⁻⁶ The strongest risk factors are age and a history of prior hydatidiform mole. Women of both extreme of reproductive age are most vulnerable. Specifically, adolescents and women aged 36 to 40 years have a twofold risk, but those older than 40 have an almost tenfold risk.^{7,8} With a previous mole, the rate is 2.7 percent.⁹ After two prior molar pregnancies, 23 percent women had third mole.¹⁰ It should be noted that patients with uterine size 4 weeks larger than date and the presence of theca lutein cyst of >6cm have a 50% risk of persistent disease.¹¹ With rare exceptions, molar pregnancies arise from chromosomally abnormal fertilizations. Complete mole most often has a diploid chromosomal composition. These usually are 46,XX. Partial moles usually have a triploid karyotype 69,XXX, 69,XXY or much less commonly, 69,XYY. In some twin pregnancies, one chromosomally normal fetus is paired with a complete diploid molar pregnancy in rare cases. In such cases, survival of the normal fetus is variable

and dependent on complications that commonly develop from the molar component. The most worrisome are preeclampsia or hemorrhage, which frequently necessitate preterm delivery. Most molar pregnancies are detected when they are small and before complications ensue.^{12,13} As gestation advances, symptoms generally tend to be more pronounced with complete compared with partial moles.¹⁴ Untreated molar pregnancies almost always cause uterine bleeding that varies spotting to profuse hemorrhage. Accurate diagnosis of H. mole is important, because it is a risk of persistent gestational trophoblastic disease including choriocarcinoma.

Material and Methods

A retrospective study was carried out for over a period of two years from April 2015 to March 2017 in the Department of Obstetrics and Gynecology at S. K. Medical College, Muzaffarpur, Bihar. All women who were admitted at our hospital and diagnosed as having molar pregnancy were included in study as study subjects. Those cases whose all relevant information were not available, excluded from the study. All cases were analyzed in terms of age, residence, parity, clinical features, sonological and laboratory findings, management given and outcome. All the relevant data were collected from hospital records and departmental registers. Collected data were computed and analyzed statistically.

Result

A total of 37 cases of molar pregnancies were recorded for the period of two years. During this study period, the total number of deliveries was 18,143. Hence the incidence of molar pregnancy in our study is 0.815 in 400 deliveries.

Table 1

Demographic profile	No of cases	Percentage
Age in years		
<20 years	3	8.1%
20 – 30 years	24	64.86%
>30 years	10	27.02%
Residence		
Rural	24	64.86%
Urban	13	35.14%
Gravida/Parity		
Primigravida	7	18.91%
Multigravida	23	62.16%
Grandmultigravida	7	18.91%

Table 2

Types of Molar Pregnancy	No of cases	Percentage
Complete mole	33	89.19%
Partial mole	4	10.81%
Symptoms	No of cases	Percentage
Vaginal bleeding	23	62.16%
Lower abdominal pain	4	10.81%
Hyperemesis	5	13.51%
Passage of molar tissue	9	24.32%
Asymptomatic	4	10.81%

Table 3

Uterine size	No of cases	Percentage
Larger than gestation age	29	78.37%
Corresponding to gestation age	8	21.62%
Laboratory findings	No of cases	Percentage
Serum β hCG level		
<50,000	11	29.73%
50,000-100,000	22	59.46%
>100000	4	10.81%
Gestational age at presentation	No of cases	Percentage
<10 weeks	5	13.51%
10-20 weeks	28	75.67%
>20 weeks	4	10.81%
Complications	No of cases	Percentage
Hemorrhage	6	16.21%
Sepsis	2	5.4%
Pulmonary embolism	1	2.7%
DIC	1	2.7%
Management	No of cases	Percentage
Suction evacuation	36	97.3%
Hysterectomy	1	2.7%
Prophylactic chemotherapy	8	21.62%

64.86% cases were of age group 20-30 years. 64.86 % were resident of rural area. 62.86% women diagnosed as having molar pregnancy were multigravida. Out of 37 cases of molar pregnancies, 89.19% cases were diagnosed having complete mole. 10.81% cases were of partial mole. Most common complain of presentation was vaginal bleeding as 62.16% patients had complain

of vaginal bleeding. Passage of molar tissue was found in 24.32% cases. Hyperemesis was seen in 13.51% of cases. Uterine size larger as compared to gestation age was observed in 78.37% cases. In 21.62% cases size of uterus were corresponding to gestational age. Serum bhCG level were between 50000-100000 in 59.46% of cases. 75.67% cases were presented with a gestational age of 10-20

weeks. Hemorrhage was seen as complication in 16.21% of cases. One case each of pulmonary embolism and DIC was encountered. Both resulted in deaths. Suction and evacuation was done in 97.3% cases. In only one case, hysterectomy was done. In 21.62% cases, prophylactic chemotherapy were given. Out of 37 cases, only 9 patients came for follow-up. Out of these 9 cases, one came with recurrent molar pregnancy and one developed choriocarcinoma.

Discussion

In our study, 64.86% cases were of age group 20-30 years. Lakra et al reported 92.1% of cases in the age group 20-34 years.¹⁵ In our study, 62.86% women diagnosed as having molar pregnancy were multigravida. Most common complain of presentation was vaginal bleeding as 62.16% patients had complain of vaginal bleeding. In another study Lakra P et al reported bleeding per vaginum in 84.2% cases.¹⁵ Most women initially have amenorrhea that is followed by irregular bleeding. Some women present with passage of molar tissue. Gemer and colleagues reported that 41 percent were asymptomatic and 58 percent has vaginal bleeding and only 2 percent had anemia or hypersmesis.¹⁶ Uterine size larger as compared to gestation age was observed in 78.37% cases. Serum β hCG level were between 50000-100000 in 59.46% of cases. Similar findings have been found in other studies. Lakra P et al reported 54.6% patients with uterine size larger than compared with gestation age. In molar pregnancy, serum β hCG levels are commonly elevated with respect to gestational age. In partial mole β hCG levels may also be significantly elevated, but more commonly concentrations fall into range expected for gestational age. 75.67% cases were presented with a gestational age of 10-20 weeks. Lakra P et al reported a mean age of 13.84 weeks (8-23 weeks).¹⁵ Sonographically, a complete mole appears as an echogenic uterine mass with numerous anechoic cystic spaces but without a fetus or amnionic sac. A partial mole is characterized by thickened, multicystic placenta

with a fetus or fetal tissue. In early pregnancy, however, these sonographic characteristics are seen in fewer than half of hydatidiform moles.¹⁷ In pregnancies before 10 weeks, classic molar changes may not be apparent because villi may not be enlarged and molar stroma may not yet be edematous and avascular.¹⁸

Conclusion

There should be proper antenatal care, screening and post natal care. Early detection of high risk pregnancies and their prompt management and referral is necessary. Early detection by ultrasonography and serum β hCG value is necessary for proper management of molar pregnancies. Prophylactic chemotherapy is also of significance in management and to prevent further recurrence of molar pregnancy. Follow up of cases including clinical examination and serum β hCG assay are very vital. Recognition of related high risk factors and use of chemotherapy at right time in indicated cases are also very important. This needs to attract intense attention. Lack of follow up of cases result in grave injury to maternal health. Enhancing women's access to family planning, adequate nutrition, improved water and sanitation facilities and affordable basic health care are basic steps to be taken to combat these unwanted incidences.

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