

## Compare Clinical Presentation of Complete Molar Pregnancy and Partial Molar Pregnancy in Imam Reza Teaching Hospital (2006-2018)

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### Abstract

**Objective:** Molar pregnancy is classified as one of the diseases groups as a type of Gestational Trophoblastic Disease (GTD) which is emerged from placenta. Hydatitiform moles are diagnosed one per 1500-2000 pregnancies in the United States. There seems to be a large variation in mole development and its frequency in Far East Asia is higher than western industrial. Mole is divided into two types, complete and partial. Our aim is compare Clinical Presentation complete Molar Pregnancy and partial Molar Pregnancy in Imam Reza Teaching Hospital in years 2006-2018.

**Methods:** Over a period of ten years. 289 patients with Clinical Presentation of Molar Pregnancy referred to Imam Reza Teaching Hospital in Kermanshah were examined. The study results are based on sonography, physical examination, pathology report and test taken of patient. Analysis was performed using sp, ss version 16 computer software. T test, chi square, Wilcoxon test. P-value less than 0.05 level of significance was considered statistically significant.

**Results:** In this study, most molar pregnant were in the 25-45 age groups as it is the age of fertility power, followed by 15-24 age range in the second rank; on the other hand, partial mole was highest frequency in 15-24 years old age. In the present study, 114 pregnant (48.1%) women were nullipar and 123 (51.9%) were multipar. the size of uterus in complete molar pregnancy were larger than partial mole. In this study only the uterus size which had significant statistics relation with molar pregnancy (P=0.017) and was not found significant relationship between other variables in our study and molar pregnancy.

**Conclusion:** Given the significance of uterine size and its importance should be considered in future studies. And seen as an approved feature

**Keywords:** Molar pregnancy; Clinical Presentation; Full Molar.

### Introduction

Molar pregnancy is classified as one of the diseases groups as a type of Gestational Trophoblastic Disease (GTD) which is emerged from placenta<sup>[1,2]</sup>. Hydatitiform moles are diagnosed one per 1500-2000 pregnancies in the United States. There seems to be a large variation in mole development and its frequency in Far East Asia is higher than western industrial countries<sup>[3]</sup>.

Mole is divided into two types, complete and partial. Molar pregnancy occurs when there are specific abnormalities in the fertilized eggs. The fertilized egg either does not develop into an embryo (complete) and/or, it grows in an abnormal form and does not survive (partial). In most complete molar pregnancies, the mother's chromosomes do not exist in the fertilized eggs and the father chromosomes replicate. Therefore, there are two copies of father's chromosomes in the egg and no chromosomes are found of mother in it.

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In this status, there is no embryo, embryo sac or any normal placental tissues; instead, the placenta develops a tumor of cluster sacs<sup>[4]</sup>.

Hydatitiform Mole is found in 1 to 2 cases per 1000 pregnancies in Japan and China and the highest frequencies are found in Indonesia, India and Turkey with 12 per 1000 pregnancies. In North America, Europe and Oceania mole pregnancy has the frequency of 0.5 to 1 per 1000 pregnancies<sup>[5]</sup>. The symptoms of the disease usually appear at the end of the first trimester and during the second trimester. The clinical symptoms include vaginal bleeding (97%) in past; 84% present, anemia (50%), excessive enlargement of uterus, as one of the classic symptoms of complete mole (50%), no fetus heartbeat, preeclampsia (27%), Hyperemesis during pregnancy (25%), trophoblastic emboli (2%), ovarian theca-lutein cysts (50%), thyrotoxicose (2%). Based on the studies, high level of HCG in molar pregnancy patients might lead to hyperthyroidism<sup>[6,7]</sup> which is reported in 7% of cases. In some studies; however, this figure is reported 5%<sup>[8]</sup>, preeclampsia has been reported in 27% of cases and one per 74 pregnancies<sup>[9]</sup>.

If this disease is diagnosed Suction curettage and Evacuation of uterus is performed immediately. Following the curettage, the  $\beta$ -HCG level of blood is measured weekly. In a person whose  $\beta$ -HCG is reduced, the follow up and measuring the hormone level must be continued for at least 6 months; however, if serum B-HCG level is plateau or increased persistent gestational trophoblastic disease or tumor is diagnosed. The aim of this research is Compare clinical Presentation of complete Molar Pregnancy and partial Molar Pregnancy.

## Materials and methods

Demographic information and history of the disease were obtained through a data collection form designed by the presenter. This was a retrospective analytic descriptive study carried out on the cases of molar pregnancies with Clinical Presentation of Molar Pregnancy, who admitted at the department of gynecology in Imam Reza teaching hospital study during 10 years (2006-2018). It was approved by Imam Reza Hospital Clinical Research development unit. 38 files were reported with the final pathology diagnosis including pregnancy products, abortion, and by conformity with sonography and pathology results, those cases were eliminated and ultimately, total 237 files were studied by the initial and final diagnosis of molar pregnancy. In this study Mother's age, Gravidity, Parity, Residence area, History of hydatitiform mole, Hyperemesis, Pre-eclampsia, Trophoblastic emboli based on medical history registry, Mole type

Hydatitiform, gestational age, Techa. Lutein cysts According to sonography findings, Level of Initial  $\beta$  HCG, Initial Hb level, Hyperthyroidism, Rh type, Blood type Based on blood test taken for patient, Vaginal bleeding, Uterus size Via physical examination or as registered in the medical file and Pathologic results through pathology report were investigated. Thus, our assessments and grouping into two classes of complete and partial molars is based on examining 237 cases. Population study was those women who clinical presentation of molar pregnancy. Analysis was performed using spss version 16 computer software. T test, chi square, U Mann-Whitney and Wilcoxon test.  $P < 0.05$  was considered significant.

## Results

In this study 237 women with molar pregnancy who received medical and surgical management that were Participated. 181 cases (76.4%) of mothers had complete molar pregnancy and 56 cases (26.6%) had partial mole. In this study, most molar pregnant were in the 25-45 age groups as it is the age of fertility power, followed by 15-24 age range in the second rank, and this despite the fact that in partial mole is the highest in the age group 15-24. More than half of complete molar pregnancy women were in 11-17 weeks of their pregnancy; however in partial molar pregnancy, involvement in -10 weeks was the same as in 11-17 weeks pregnancy. Demographic information in the study is presented in the table 1.

In the present study, 114 pregnant (48.1%) women were nullipar and 123 (51.9%) were multipar. the size of uterus in complete molar pregnancy were larger than partial mole. In this study only the uterus size which had significant statistics relation with molar pregnancy ( $P=0.017$ ) and was not found significant relationship between other variables in our study.

Parties of women were studied and In general, in the present study, 114 pregnant women (48.1%) were nulliparous and 123 cases (51.9%) were multiparous. Of 237 patients with molar pregnancy, 163 people living in city and 74 people lived in rural areas, as well as the history of previous molar pregnancy of 237 patients, 18 patients had a history of previous treatments. And the addition of 237 cases, the majority had positive blood group O.

Some of the variables examined in population study are presented in the table 2.

**Table 1:** Demographic Information of patients

Type of molar pregnancy		Age (year)	Gravidity	Gestational age (week)	Uterus size	Level of Initial $\beta$ HCG (mIU/ml)	Hb level (g/dL)
complete molar pregnancy	Number	181	181	181	181	181	181
	mean	28.54	2.5	11.25	14.04	52565.1	11.975
Partial molar pregnancy	Number	56	56	56	56	56	56
	mean	25.98	2.23	10.75	13.07	60199.23	12.18
total	Number	237	237	237	237	237	237
	mean	27.93	2.43	11.14	13.81	54368.94	12.024

**Table 2:** variables examined in women with full Molar pregnancy and partial Molar pregnancy

variable	complete molar pregnancy	Partial molar pregnancy	P.Value
Theca.Lutein cyst	6(3.3%)	2(3.6%)	P=1.000
Hyperemesis	40(22.1%)	6(10.7%)	P=.060
Anemia (Hb<12)	18(9.9%)	4(7.1%)	P= .528
vaginal bleeding	114(63.0%)	31(55.45%)	P=.306
preeclampsia	6(3.3%)	2(3.6%)	P=1.000
Subclinical hyperthyroidism	62(34.3%)	14(25.5%)	P=.195
Total	181(100.0%)	56(100.0%)	

None of the variables were statistically significant. Based on the Wilcoxon test, only uterine size with molar pregnancy was significant ( $p=0.017$ ), meaning that uterus size in the complete molar is more than Partial mol .

## Discussion

Gestation Trophoblastic Disease (GTD) is a rare range of disorders that engages human placenta and in terms of histology; it includes hydatitiform mole, invasive mole, and choriocarcinoma and placental site trophoblastic tumor. Most patients are treated with suction Curettage. In general, BHCG measurements are very effective in the diagnosis, treatment and follow-up of patients. In some cases, despite metastasis to other places, hCG is fixed or rising (resistance mole) which if not traded and followed up, it will turn into choriocarcinoma. The re-activities of trophoblast cells in resistance mole are suppressed by suitable chemotherapy and the patients could live an ordinary life and experience natural fertility post treatment. Complete hydatitiform mole is the most common type of gestational trophoblastic disease, the frequency of which differs in geographic terms and it has relatively high frequency in our country. Women age study Abd El Raouf Oun within 18 -48 age whit average age of was  $26.8 \pm 6.8$  years. Most women in the age range of 18-35 years old with a diagnosis of molar pregnancy based on the relationship between age and molar pregnancy test –Two not found. The average gestational age at diagnosis was  $14.4 \pm 4.5$  weeks of pregnancy and 92% of women reported they had been diagnosed molar pregnancy before 13 weeks and only in 8% of cases detected molar pregnancy for the first time between 13-20 weeks of pregnancy was<sup>[12]</sup>. In our study, 181 mothers were complete molar pregnancy with mean age of  $28.54 \pm 8.7$  years and a median of 27 years. Mothers aged 15-54 years constituted. In which 56 cases were incomplete mole average age of mothers was  $25.98 \pm 7.2$  years, the median was 25 years younger than complete mole. Mothers aged 15-49 years in the study were younger. Results of Our study was in line with the previous study and statistically not significant.

In the study of Nirmala and colleagues, the majority of women (95.1%) had vasinal bleeding.

In the Fatima M study, the most common clinical manifestations of these patients were vasinal bleeding. In the study of Haidarkhan and colleagues, 5% of patients had amenorrhea<sup>[13-16]</sup> or irregular uterine bleeding. In our study, vaginal bleeding was seen in 61.2% of the cases and was not statistically significant. Excessive normal uterine size is a feature of molar pregnancy. In

the study of Abd El Raouf Oun, a small uterine size for gestational age, proportional to gestational age and older was found in 14%, 22%, 64%, molar pregnancies, respectively. In the Nirmala and colleagues study, uterus size was greater than gestational age in 18 cases. In our study, the most common symptom in the study population<sup>[17]</sup> was uterine over-age (75%).

In the vakilis study, 9.3% of patients had hemoglobin levels below 10 g / dl. In the study of Bahasadri, anemia occurred in 13.9%<sup>[1]</sup>, in the study of Zia, anemia was reported at 19.2%. In the study of Abd et al., Which reported anemia in hemoglobin less<sup>[18-20]</sup> than 11 g / dl, 24% of patients were anemic. In the present study, only 9.3% of people had anemia at the beginning of pregnancy. In the Bahasadri s Study, hyperthyroidism was diagnosed in 4.3%. In the Zia study; hyperthyroidism<sup>[21,22]</sup> was seen in 19.2%.

## Conclusion

Clinical protests were similar to mole partial molar pregnancy and there was no statistically significant difference. Hyperemesis were complete moles rather than partial moles that could be the difference between the differential clinical evaluation molar pregnancies. The aim is to demonstrate the importance of uterine size, access to comprehensive information on the incidence of hydatidiform mole and its associated symptoms in women referred to the Imam Reza Hospital, the western referral center of the country, and the results will be based on future studies.

**Conflict of Interests:** The authors declare that there is no conflict of interests regarding the publication of this paper.

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