



CLINICAL ANALYSIS OF MOLAR PREGNANCIES IN A TERTIARY CARE CENTRE

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ABSTRACT

Background: Molar pregnancy is considered as aberrant pregnancy due to abnormal trophoblastic proliferation representing a significant burden on the spectrum of Gestational trophoblastic diseases. Incidence of Gestational trophoblastic diseases have wide regional variation. **Objective:** To study clinical profile, incidence, treatment and complications of molar pregnancies admitted at our institution. **Methods:** This prospective observational study was conducted in the Department of OBGYN at Malla Reddy Institute of Medical Sciences, Suraram during a period of 15 months (October 2021-Dec 2022). **Results:** A total of 12 Gestational trophoblastic disease patients were diagnosed at our institute with an incidence of 0.64/1000 pregnancies. Among the 12 cases, 7 cases are complete mole, 4 are partial mole and 1 is invasive mole. 58% of patients were 21-30 year age group, 58% of patients were nulliparous. Amenorrhea was a presenting complaint in all patients followed by bleeding per vaginum in 75% of patients and pain abdomen in 58% of patients. Suction evacuation was done in 11 patients. Commonest complication was found to be Anaemia followed by Hemorrhage. **Conclusion:** Early diagnosis, standard management and vigilant monitoring of molar pregnancies is essential for improving their cure rate and also to prevent their progression to Gestational trophoblastic neoplasia.

KEYWORDS : Gestational trophoblastic neoplasia, Gestational trophoblastic disease, Hydatidiform mole, molar pregnancy

INTRODUCTION:

Gestational trophoblastic disease includes a group of pregnancy related tumors consisting of cellular proliferation which arises from the placental villous trophoblast comprising of 4 main clinicopathologic forms- Hydatidiform mole: Complete or Partial, Invasive mole, Choriocarcinoma, Placental site trophoblastic tumour. The term Gestational trophoblastic neoplasia has been applied collectively to the latter three conditions which can progress, invade, metastasise and lead to death if left untreated[1]. The incidence of Gestational trophoblastic disease varies greatly in different parts of the world from 0.4 per thousand births in the USA to 12.5 per thousand births in Taiwan^[2].

The incidence of Gestational trophoblastic disease in India was found to be 1 per 967 pregnancies in an epidemiological study on Gestational trophoblastic diseases in the North Indian population[3]. Hydatidiform mole is the commonest Gestational trophoblastic disease and the incidence is 0.1% amongst all pregnancies^[4].

The risk factors are extremes of maternal age, previous molar pregnancy, low socioeconomic status, high parity, malnourishment, deficiency of proteins, folic acid, carotene and prolonged intake of OC pills^[5,6,7,8,9].

Clinical presentation of Hydatidiform mole is certain period of amenorrhea followed by painless bleeding and passage of grape like vesicles per vaginum, excessive vomitings, nausea, doughy uterus, inappropriate uterine size, bilateral Theca lutein cysts and in severe cases, Thyrotoxicosis and Pre-eclampsia can also be seen in the first trimester itself^[10,11,12].

Molar pregnancies are usually misdiagnosed as incomplete abortion, missed abortion or failed early pregnancy clinically and sonographically but sometimes molar pregnancies are diagnosed incidentally during dating scan and scan findings are supported by corresponding serum beta hCG values and confirmed by histopathological reporting.

Suction evacuation and minimal curettage is the widely used initial mode of management of a Hydatidiform mole irrespective of uterine size in reproductive age group patients. Serial serum beta hCG levels after evacuation of hydatidiform mole is essential to detect Gestational trophoblastic disease sequelae (invasive mole or choriocarcinoma) which develops in approximately 15 to 20% of complete mole cases and less than 5% of partial mole cases^[13,14,15,16,17]. Most of the patients with Gestational trophoblastic disease can be well treated by preserving their fertility and preventing malignant sequelae with early diagnosis of disease, effective uterine evacuation and careful serum

beta hCG monitoring in the follow up period to diagnose post molar Gestational trophoblastic neoplasia in initial stages.

OBJECTIVE: The aim of this study was to analyse all molar pregnancies admitted at the tertiary care centre and to evaluate the incidence, risk factors, clinical presentation management and complications of molar pregnancies.

METHODS: With approval of institutional ethical committee, this observational study was conducted at Malla Reddy Institute of medical sciences, Suraram from October 2021 to December 2022. All reproductive age group women who were diagnosed with molar pregnancy by ultrasound scan, corresponding serum beta hCG values and histopathological examination were included in this study. During this study period, 12 cases of molar pregnancy were reported among 18525 total pregnancies. All patients in the study group were questioned about their history in detail which includes age, occupation, socio-economic status, parity, gestational age at diagnosis, previous obstetric history, family history, dietary habits, menstrual history and clinical profile such as period of amenorrhea, bleeding per vaginum, pain abdomen, hyperemesis, pedal edema, passage of grape like vesicles per vagina followed by General physical examination, per abdominal examination, per vaginal examination, systemic examination were all done to look into size and consistency of the uterus, bilateral Theca lutein cysts, any haemorrhage associated with anaemia, thyroid related symptoms, raised BP recordings, respiratory symptoms in order to evaluate malignant transformation.

All routine blood investigations along with serum beta HCG, Ultrasound scan, Chest x-ray, Thyroid function tests were done followed by termination of pregnancy with primary mode of treatment suction evacuation was performed under anaesthesia with minimal curettage. The products of conception samples were sent for histopathological examination. Post evacuation serum beta hCG was done after 48 hours of procedure. Later patients were counselled about chances of malignant transformation and the need of follow-up for clinical examination and serum beta hCG estimation till it becomes negative. All patients were also advised to use contraception for preventing pregnancy during follow-up period.

RESULTS: Out of 18525 registered pregnancies at the institute from October 2021 to December 2022, a total of 12 patients were diagnosed as molar pregnancies. So the incidence of molar pregnancy of the institute was 0.64 per thousand pregnancies. Among these 12 cases, 7 were Complete mole, 4 were Partial mole and 1 was Invasive mole at the time of presentation. Many of the patients were in the age group of 21 to 30 years (58%). Most of the patients were Nulliparous (58%). All

patients presented with period of amenorrhea for certain period associated with bleeding per vaginum(75%), pain abdomen(58%), passage of vesicles per vaginum (42%) and hyperemesis (42%), Uterine size was larger for gestational age in(58%) patients and appropriate for gestational age in (25%)patients and small for gestational age in(17%) patients. Complications like anaemia seen in(75%) patients, acute haemorrhage seen in (50%)patients who were transfused with packed RBCs, Hyperthyroidism(25%) and Pre-eclampsia(17%) were also detected in few patients. One patient was diagnosed with an invasive mole had respiratory symptoms and presented with shock. Suction evacuation was carried out in 11 cases out of 12 and Invasive mole patient underwent hysterectomy in view of uterine perforation with uncontrollable haemorrhage. Post suction evacuation during the follow up period, most of the patients showed negative or normal beta hCG values for 3 consecutive weeks. So spontaneous remission was detected without malignant transformation. Invasive mole case had developed pulmonary metastasis and was diagnosed to be low-grade choriocarcinoma. So the patient was referred to the Oncology centre for chemotherapy.

TABLE 1: AGE DISTRIBUTION OF MOLAR PREGNANCY(%)

AGE	CASES	PERCENTAGE
18-20 years	3	25%
21-30 years	7	58%
31-40 years	2	17%

TABLE 2: PARITY DISTRIBUTION OF MOLAR PREGNANCY

PARITY	CASES	PERCENTAGE
Nulliparous	7	58%
Para 1	4	33%
Para 2	1	9%

TABLE 3: PERIOD OF AMENORRHEA AT PRESENTATION

Period of amenorrhea	Cases	Percentage
≤8weeks	4	33%
9-14 weeks	6	50%
15-20 weeks	2	17%

TABLE 4: CLINICAL PRESENTATION OF MOLAR PREGNANCY

Presentation	Cases	Percentage
Amenorrhea	12	100%
Vaginal bleeding	9	75%
Pain abdomen	7	58%
Passage of Vesicles	5	42%
B/L Theca Leutin Cyst	1	8%
Hyperemesis	5	42%
Uterine size		
Larger for gestational age	7	58%
Appropriate for gestational age	3	25%
Small for gestational age	2	17%

TABLE 5: COMPLICATIONS OF MOLAR PREGNANCY

Complications	Cases	Percentage
Anaemia	9	75%
Acute onset haemorrhage	6	50%
Hyperthyroidism	3	25%
Pre-eclampsia	2	17%
Respiratory symptoms	1	8%
Shock	1	8%

DISCUSSION:

In this study, incidence of molar pregnancy was 0.64%. In another study among the North Indian population conducted by Rauf et al the incidence of Gestational trophoblastic disease was 1 per 967 pregnancies[18]; other studies conducted in Europe, North America, Australia, New Zealand reported the incidence of 0.57-1.1 per thousand pregnancies. But studies in Japan and Southeast Asia showed an incidence of 2 per thousand pregnancies[19]. Majority of patients had complete mole followed by partial mole and invasive mole in this study which is corresponding to the study conducted by Farhat Khanum et al[20]. According to Fatima et al study[21] molar pregnancies are more common in nulliparous women which is in accordance with this study. Also the age group of 21 to 30 years were the majority of patients with molar pregnancy which is also reported in Ramesh Chandran et al study[22]. The study also revealed that

majority of the patients were diagnosed and clinically presented in early weeks of pregnancy which is coinciding with Madhuri et al[23] study who also reported molar pregnancy diagnosis and clinical presentation in early weeks. This confirms the need for early ultrasound examinations in all pregnant women.

Regarding the clinical presentation in this study besides amenorrhea , bleeding per vagina is the most common clinical finding which is also reported in a study conducted by Nousheen Aziz et al[24] . Complications of molar pregnancy reported in this study were also demonstrated in previous studies and documentations in the literature.

Majority of the patients had suction evacuation as primary mode of treatment with blunt curettage. Hysterectomy was done in a patient who was diagnosed as an invasive mole with uterine perforation in the posterior-lateral wall.

CONCLUSION:

Molar pregnancy is one of the common cause of maternal morbidity. Early diagnosis and prompt detection of molar pregnancy by ultrasound scan and serum beta hCG values is necessary for appropriate management and timely referral in order to prevent malignant transformation into Gestational trophoblastic neoplasia.

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