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**ORIGINAL ARTICLE**

# A Study of Molar Pregnancy at Low Resource Settings of Tertiary Care Hospital Sindh

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## ABSTRACT

**Aim:** To determine the epidemiological factors/characteristics and clinical presentation of molar pregnancy
**Study design:** Qualitative observational / retrospective study
**Place and duration**: Department of Obstetrics and Gynaecology Unit-II, Ghulam Muhammad Mahar Medical College Sukkur from 1st January 2016 to 31st December 2020.
**Methodology**: Forty five diagnosed cases with molar pregnancy and aged between 18-40 years were enrolled. Patient's details demographics age, body mass index, parity and socio economic status were recorded. The total birth records and gynecological admission for the study period were also collected from the gynaecology and labour room record books case and operational registration data were obtained, descriptive statistics examined .
**Results:** Mean age of the patients was 31.15±7.41 years with mean body mass index 26.16±7.22 kg/m$^2$. Mean gestational age of the patients were 25.62±9.19 weeks. Twenty seven (60%) patients were multiparous and 18 (40%) were primiparous. 30 (66.7%) were illiterate and 15(33.3%) cases were literate. There were 14(31.11%) patients belonged lower class, 18 (40%) patients belonged middle and 13(28.9%) had high socioeconomic status. Twenty nine (64.4%) were from rural area and 16 (35.6%) were from urban area. Five (11.1%) patients had previous history of gestational trophoblastic disease. Abnormal vaginal bleeding was the most common symptom found in 34(75.5%) cases followed by lower abdominal pain found in 30 (66.7%) patients, hyperemesis found in 14(31.1%) and dyspnea in 9 (20%). Thirty six (80%) patients received suction evacuation and 9 (20%) cases referred. Forty one (91.1%) patients were recovered but the rest 4 (8.9%) were lost during follow up.
**Conclusion:** Low/middle socio-economic status, illiteracy and cases from rural areas had multiparous parity was highly effected by molar pregnancy disease and it can be controlled by early diagnose to take regular follow-up by using suction evacuation.
**Key words:** Gestational trophoblastic disease (GTD), Molar pregnancy, Primiparous, Multiparous

## INTRODUCTION

A heterogeneous set of pregnancy-related disorder gestational and neoplastic disorders distinguished by the aberrant proliferation of placental trophoblastic cells is part of the idea of gestations trophoblastic disease. Thus, they come from embryonic tissues, not maternal.[1,2] Comprising of benign hydatidiform mole which includes partial mole and complete mole to neoplastic problems including invasive mole, metastatic mole, choriocarcinoma, placental site trophoblastic tumour, and epithelioid trophoblastic tumour.[3]

Throughout the world the incidence varies, as in South-east Asia the incidence is significantly higher as compared with the Western world. The incidence rate is about 0.2-1.5/1000 live births in Europe and North America.[4] An overall incidence of one of every 591 viable pregnancies for 2000-2009 reported in a recent study from the England.[5] The incidence of molar pregnancy in the England shown to be ethnically different with a greater incidence in women from Asian origin compared to non-Asian women (1/387 versus 1/752 live births).[6] In Japan, 2/1000 live births reported while in Malaysia, for molar pregnancy, it is 2.8/1000 and for GTD it is 1.59/1000.[7,8] The incidence in Turkey is approximately 12.1/1000 deliveries.[9] In South-east Asia, the malignant potential of the condition is much greater, with 10-15%, compared with 2-4% in the Western World.[10] For Pakistan the true incidence of disease is yet to be known. Although the frequency for gestational trophoblastic disease reported in one study was 28 per 1000 live births.[11]

The genetic derivation of molar pregnancy is unique. Despite high malignancy progression, the overall cure rate is generally good as over of 90% and most patients can maintain fertility and can have a normal pregnancy in future. However, the disease has recurrence. That is why its paramount for regular follow up with specialist or at regional centre for disease l monitoring and advance management. Abnormal Vaginal bleeding during pregnancy is the most common symptom of molar pregnancy. Some can have passage of vesicles and the uterus can be bigger than the dates on clinical examination .Molar pregnancy is diagnosed by serum BhCG, which is a glycoprotein produced by syncytial trophoblasts a discrete tumour marker. However, there is no-consensus on cut-off values in diagnosis; however, studies have shown that if the level of BhCG were greater than two multiples of the median a molar pregnancy would be labeled.

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## MATERIALS AND METHODS

This was retrospective study of all cases of molar pregnancies admitted in the Department of Obstetrics and Gynaecology, Ghulam Muhammad Mahar Medical College, Sukkur from 1st January 2016 to 31st December 2020. The research was approved by the Hospital Ethical Committee. All cases of diagnosed molar pregnancies admitted through the emergency or outpatient department or referred cases from basic health units. Patients had other medical illness like diabetes, hypertension, thyroid disorders were excluded. Data on maternal age, parity, educational status, socio-economic condition, place of residence, dietary habits, previous history of molar pregnancy, duration of pregnancy, clinical presentation, investigations like blood group, serum BhCG, ultrasound, management modality, referral to regional oncology centre, follow up, using case sheets and operative/ward registers. The total birth records and gynaecological admissions for the study period were also collect from the gynaecology and labour room's record books. The data was entered and analyzed through SPSS-21.

## RESULTS

Mean age of the patients was 31.15±7.41 years with mean BMI 26.16±7.22 kg/m$^2$. Mean gestational age of the patients were 25.62±9.19 weeks. There were 27(60%) multiparous patients and 18 (40%) primiparous patients. Thirty (66.7%) were illiterate and 15(33.3%) cases were literate. Fourteen (31.11%) patients were from lower class, 18 (40%) were from middle and 13(28.9%) had high socioeconomic status. Twenty nine (64.4%) patients belonged to rural area and 16(35.6%) belonged to urban area (Table 1). Five (11.1%) patients had previous history of gestational trophoblastic disease and the rest were 4(88.9%) had gestational trophoblastic disease for the first time (Table 2).

Table 1: Descriptive statistics of patients (n=45)

| Variable | No. | % |
|---|---|---|
| Mean age (years) | 31.15±7.41 | |
| Mean BMI (kg/m$^2$) | 26.16±7.22 | |
| Gestational age (weeks) | 25.62±9.19 | |
| **Parity** | | |
| Multiparous | 27 | 60.0 |
| Primiparous | 18 | 40.0 |
| **Literacy** | | |
| Yes | 15 | 33.3.0 |
| No | 30 | 66.7.0 |
| **Residency** | | |
| Urban | 29 | 64.4 |
| Rural | 16 | 35.6 |
| **Socioeconomic status** | | |
| Low | 14 | 31.1 |
| Middle | 18 | 40.0 |
| High | 13 | 28.9 |

Table 2: History of patients with respect to gestational trophoblastic disease

| Gestational trophoblastic disease | No. | % |
|---|---|---|
| Previous history | 5 | 11.1 |
| Newly | 40 | 88.9 |

Abnormal vaginal bleeding was the most common symptom found in 34 (75.5%) cases followed by lower abdominal pain found in 30 (66.7%) patients, uterus large for dates in 15 (33.3%), hyperemesis found in 14 (31.1%), passage of vesicles in 10(22.2%), dyspnea in 9 (20%) and HTN in 6(13.4%) cases (Table 3). Outcomes were assessed and found 36(80%) patients had suction evacuation and 9(20%) cases were referred. 41(91.1%) patients were recovered but the rest 4(8.9%) were lost during follow up. Early diagnosed of GTD resulted in reduction of morbidity and mortality among molar pregnancies and highly affected for recovery of patients (Table 4).

Table 3: Association of symptoms among molar pregnancies

| Symptoms | No. | % |
|---|---|---|
| Abnormal vaginal bleeding | 34 | 75.5 |
| Abdominal pain | 30 | 66.7 |
| Uterus large for dates | 15 | 33.3 |
| Hyperemesis | 14 | 31.1 |
| Passage of vesicles | 10 | 22.2 |
| Dyspnea | 9 | 20.0 |
| Hypertension | 6 | 13.4 |

Table 4: Outcomes among enrolled cases after follow-up (n=45)

| Variable | No. | % |
|---|---|---|
| **Treatment** | | |
| Suction evacuation | 36 | 80.0 |
| Referred | 9 | 20.0 |
| **Mortality** | | |
| Yes | 4 | 8.9 |
| No | 41 | 91.1 |

## DISCUSSION

Gestational trophoblast disease covers a distinct group of unusual but connected placental trophoblastic disorders with a variety of histological and clinical departments.[12] Molecular testing can determine the origin of the whole hydatidiform mole in nuclear DNA and enable us to designate patients who have a higher risk of malignance to gestational choriocarcinoma.[13,14]

In the present study, the age between 18-40 years and mean age of the patients was 31.15±7.41 years with mean BMI 26.16±7.22 kg/m$^2$. Mean gestational age of the patients were 25.62±9.19 weeks. These findings were comparable to the previous some studies.[15,16] Altman et al[17] and Khaskheli et al[18] concluded that maternal age was an important element in molar pregnancy risk.

In the current study, 30 (66.7%) were illiterate and 15 (33.3%) cases were literate. According to socio economic status 14 (31.11%) patients were from lower class, 18 (40%) were from middle and 13 (28.9%) had high socio economic status. 29 (64.4%) were from rural area and 16 (35.6%) were from urban area. This was similar to the previous finding.[19] The conclusive facts are not supported in dietary etiology. The disease was more frequent in the extreme of reproductive ages in this study. The results of studies in Singapore[20] and Karachi are consistent.[21] Hydatidiform mole was previously pregnant in invasive mole, whereas both patients had full-term embarrassment in choriocarcinoma one year ago. Five (11.1%) patients had previous history of GTD and the rest were 40 (88.9%) had GTD for the first time. These findings were contrast to

the study conducted in past in which previous history of GTD patients were highly effected.[22]

Abnormal vaginal bleeding was the most common symptom found in 34 (75.5%) cases followed by lower abdominal pain found in 30 (66.7%) patients, uterus large for dates in 15 (33.3%), passage of vesicles in 10 (22.2%), dyspnea in 9 (20%) and HTN in 6 (13.33%) cases. In previous studies conducted by Kim[23] and Zalel et al[24] vaginal bleeding was the most common symptom found. Another study presented by Moodley et al[15] have also reported the same findings. Hyperemesis found in 14 (31.1%) cases, a multifactorial disease is hyperemesis Gravidarium. It is not known, however, because human chorionic gonadotrophin is high. Trophoblastic illness diagnosis based on clinical and histological factors, BHCG, ultrasound, in particular with vaginal ultrasounds with a high resolution, which can detect the disease much sooner. The sensitive detectors of trophoblastic illness include ultrasound and serum BhCG. These tests are straightforward, non-intrusive, cheap and fast. Ultrasound is the method of choice for assessing normal or abnormal pregnancy in the first quarter. In most cases of GTD, reliable diagnosis is attainable when the sonographic appearance correlates with the clinical presentation.

Suction evacuation was done among 36(80%) patients in our study and the rest 9(20%) cases were referred. Khaskheli et al[18] presented the same findings in her study. 91.1% patients were totally recovered in this study. Izhar et al[25] from Peshawar has also reported cure rate of 80%. Low para and large multiparous women suffered from the sickness. Regular follow-up patients have healed entirely while problems, delaying recovery and not being properly treated are connected with mortality. The fate of diseases is largely affected by proper management in early stages. Accordingly, the early detection of the disease should be stressed in order to decrease death and morbidity.

## CONCLUSION

The lower /middle socioeconomic status, illiteracy and cases from rural areas, multiparous women were the major characteristics, abnormal vaginal bleeding during pregnancy was the commonest clinical presenting symptoms of molar pregnancy.

**Conflict of interest:** Nil

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