

GESTATIONAL TROPHOBLASTIC DISEASES; A TERTIARY CARE EXPERIENCE

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ABSTRACT... Objective: The study was carried out to evaluate the frequency and types of gestational. Trophoblastic diseases (GTD) in endometrial curettings received for histopathology examination. **Data Source:** Pathology Department, Shifa Naval Hospital Karachi. **Design of Study:** It was a Retrospective Descriptive Observational study. **Setting:** Department of Pathology, Pakistan Naval Ship; Shifa Naval Hospital Karachi. **Period:** From 2009 till 2010. **Material & Methods:** A total of 170 cases of endometrial curettage were examined. All specimens received with a diagnosis of product of conceptions (POC) or with the clinical suspicion of a gestational trophoblastic disease were included. **Results:** It was observed that partial mole identified in 57.1 % cases followed by complete mole 21.4%, choriocarcinoma 14.2% and placental site Trophoblastic disease 7.1% cases. Nearly half of the cases were diagnosed as having a gestational trophoblastic disease; these were from the age groups of 26-30 years followed by 21-25 years. **Conclusions:** Hydatidiform mole is the commonest gestational trophoblastic disease. Most complete moles are detected clinically but partial moles are misdiagnosed as abortions therefore all cases of abortions should be sent for histopathological examinations.

Key words: Gestational trophoblastic disease (GTD), Hydatidiform mole (HM), Partial mole, Placental site trophoblastic tumor (PSTT) and Choriocarcinoma

INTRODUCTION

Uterine curettings containing chorionic villi or fragments of trophoblast are commonly encountered in routine histopathological practice. Most are simple retained products of conceptions but in some the trophoblast appears abnormal and the possibility of choriocarcinoma must be considered. Gestational trophoblastic disease is a rare condition in which trophoblastic tissue around the fertilized egg proliferate to form an abnormal cluster of cells¹.

Clinically, the uterus is large for corresponding dates. This condition is recognized by imaging i.e. ultrasonographic demonstration of abundant hydropic changes². Diagnosis of gestational trophoblastic disease is suspected in painless vaginal bleeding which is the most common symptom³. Hyper-emesis, enlarged uterus, toxemia prior to 20 weeks and absent fetal parts, are among the diagnostic criteria⁴. Ultrasound can correctly identify the placental molar transformation in utero. It is a simple, inexpensive, non-invasive and useful

technique employed in the diagnosis of pelvic tumor in women⁵.

The modified World Health Organization (WHO) classification of gestational trophoblastic tumor includes, a complete and partial mole, an invasive mole, choriocarcinoma, placental site trophoblastic tumor (PSST), epithelioid trophoblastic tumor, exaggerated placental site tumor and placental site nodule⁶.

Asian countries report the highest incidence of gestational trophoblastic diseases followed by Africa, Latin America whereas the Europe, Australia and United States of America report the lowest rates⁷. It is noted that consanguinity, malnutrition, racial genetic predisposition, oral contraception and viral infection have been linked as contributory factors in gestational trophoblastic tumors⁸.

This study was planned to examine the EC and hysterectomy specimens to determine the frequency of gestational trophoblastic disease in our patients and to

correlate the results with other studies.

MATERIALS AND METHODS

This was a prospective, Descriptive Observational study, which was conducted at Department of Pathology, Pakistan Naval Ship; Shifa Naval Hospital from 2009 till 2010. A total of 170 cases were selected. All specimens received with a diagnosis of product of conceptions (POC) or with the clinical suspicion of a gestational trophoblastic disease were included.

RESULTS

Mean age of the patients was 29.3 years. Maximum numbers of patients were in their early third decade of life. The youngest patient was aged 18 whereas the eldest was 41 years old. Patients with products of conception were from all ages in between this range; whereas patients diagnosed with partial mole and complete mole were in their mid twenties. Nearly half of the cases were diagnosed as having a gestational trophoblastic disease; these were from the age groups of 26-30 years followed by 21-25 years. Close to 1/3rd of these patients were nulliparous, whereas patients with one previous live birth comprised 32 % of the cases (a major group of this segment). Out of the two females diagnosed as having choriocarcinoma, one was nulliparous and the other had one live birth previously. Two of the three complete moles reported in our study, were from females without any previous live birth, while one did have one previous live birth. As for partial moles, one had no live birth previously whereas five had one and two cases had two previous live births. Patient with the Placental site trophoblastic tumor did not have any previous live births. Nearly a quarter of patients had, at least one previous abortion, whereas two or more previous abortions made 11.8% and 4 % respectively. A large number of cases had no previous history of abortions (61.8%). One patient of choriocarcinoma and complete mole had previous history of one whereas five patients of partial mole had previous history of one abortion. History of multiple abortions was seen in one patient of complete and partial mole each. Only 2 patients who were diagnosed as having GTD in our study gave previous history of molar pregnancies, whereas 12 patients with products of conception as their current diagnosis had a history of GTD. Table I shows the

frequency of various GTD encountered in our study. Majority of cases i.e. 91.8% cases were diagnosed as products of conception. Partial mole were found in 4.7% of cases, complete moles were identified in 1.8 % cases, followed by choriocarcinoma in 1.2 % cases and placental site trophoblastic tumor was seen in only 0.6% cases.

Table-I. Showing the frequency of GTD in our study.

Histological Diagnosis	Frequency	%age
Choriocarcinoma	2	14.2
Complete Mole	3	21.4
Partial Mole	8	57.1
Placental Site Trophoblastic Tumor	1	7.1

DISCUSSION

We observed that 50 % of cases of gestational trophoblastic diseases are from the age group 20-30 yrs and molar pregnancy in our study is seen in the early age group i.e. 20 to 30 years of age. Sadiq⁹ concluded that commonest age group for the development of GTD is in the extremes of age. It was reported that 30.43 % of cases are less than 20 year of age and 26.1 % of cases are in > 40 age group. Khairunnisa¹⁰ found the GTD is present in the 38 year and above age group and makes more than 53.3 % of cases. In our study the total cases of GTD were 14 with 5 of them (35%) are nulliparous. These findings nearly correlates with those of Talati¹¹ who reported 28 % of such patients. However the findings of khaskheli¹² were 43 % for para one and 34.78 % for multiparous (para 4+) patients. Khaskheli reported 50 % subjects to be para one while 40% were para 4+. In our study 22.8% subjects had at least one previous abortion whereas multiple abortions were noted in 15.8 % cases. A history of recent abortion is regarded as a risk factor according to World Health Organization's risk factor scoring system¹³. Talati¹¹ reported 3.2 % cases with recurrent abortions. However in contrast the other two studies of khaskheli and khairunisa reported 30 % cases. Our observations portray that history of previous molar pregnancies were reported in only 2 out of 14 cases (14.28%). 12 patients who were diagnosed as POC had previous history of a molar pregnancy. Khaskheli reported a history of molar pregnancy in up to 60% of

such cases¹². Khairunsa reported this feature in 63.3 % of cases¹⁰.

CONCLUSIONS

It is concluded that hydatidiform mole is the most common gestational trophoblastic disease and partial mole is more frequently identified than the complete mole. Most complete moles are detected clinically but partial moles are misdiagnosed as abortions therefore all cases of abortions should be sent for histopathological examinations.

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