

GESTATIONAL TROPHOBLASTIC DISEASE: A CONTINUING DILEMMA

Madiha Iqbal¹, Naheed Akhtar², Sana Iqbal³, Talat Naz²

ABSTRACT

Objectives: To find out frequency, clinical presentation, management outcomes of gestational trophoblastic disease (GTD) and need for chemotherapy.

Study Design: Descriptive case series

Duration and Place: Department of Gynecology & Obstetric "A" Unit of Khyber Teaching Hospital, Peshawar from January, 2012 to December, 2016 (5 Years duration).

Materials & Methods: The clinical record of all the GTD cases during the 5 years study period were taken into account regarding socio demographic data, clinical presentation, serum B-hCG and levels, management outcomes and type of GTD on histopathology.

Results: There were a total of 28,828 obstetrical admissions (patients presenting with fetuses AFTER the age of viability) while 2,270 gynaecological admissions presented as early pregnancy losses (i.e. BEFORE the age of viability) making a total of 31,098 pregnancies in 5 years. Among them 102 patients presented with GTD. Hence the frequency of GTD was calculated to be 3.27 /1000 pregnancies these 102 cases, 76 were h mole and 23 had invasive disease. 10 patients received chemotherapy, while rest of the patients did well with suction only. As expected 101 patients fully recovered while 01 died due to metastasis.

Conclusion: The frequency of GTD in our study was much higher as compared to International studies. Mostly presented with hydatidiform mole which if treated in time has got high cure rates.

Key Words: H. mole choriocarcinoma, chemotherapy.

INTRODUCTION

Gestational trophoblastic disease is a dynamic disease which comprises partial and complete moles, invasive moles, choriocarcinoma and placental site trophoblastic tumor. Epitheloid trophoblastic tumor has also been added to this classification.¹

The incidence of GTD is variable across the globe. In Malaysia and Japan the incidence is 2/1000 live births.^{2,3} In USA, the incidence is reported to be 2.5/1000 live births.⁴ Highest incidence of 12-5/1000 live births have been reported in Turkey.⁵ The exact incidence in our country is unknown but one study reports it to be 0.68/1000.⁶

The exact etiology of the disease is unknown. The most common risk factor is a past history of GTD.⁷

¹ Department of Gynae C Ward, Hayatabad Medical Complex, Peshawar

² Department of Gynae D Ward, Khyber Teaching Hospital, Peshawar

³ Department of Radiology Rehman Medical Institution, Peshawar

Address for correspondence:

Dr. Madiha Iqbal

Gynae C Ward, Hayatabad Medical Complex, Peshawar

E-mail: drmadiha881@gmail.com

Contact # 03339225922

This disease is characterized by secretion of a tumour marker B-hCG which is the mainstay of the disease both in cure and follow up. Vaginal bleeding and large for dates uterus are the common features.^{8,9}

The objective of this study was to find frequency, clinical presentation, management outcomes and the need for chemotherapy in patients presenting to Khyber Teaching Hospital with GTD.

MATERIALS AND METHODS

This descriptive study was carried out at Gynae and Obs Unit "A" KTH Peshawar. The data from Jan, 2012 to Dec, 2016 was analyzed. The patients diagnosed to have GTD were included in the study. The diagnosis was based on the presence of at least two or more of the following criteria.

1. Amenorrhea with vaginal bleeding &/or passage of vesicles, with disproportionately enlarged uterus.
2. Raised Beta HCG levels ($>10^3$ mIU/ml)
3. Sonographic or histopathological evidence of the disease.

The clinical data of all the patients with GTD were analyzed for age, parity, clinical presentation, type of trophoblastic disease, management outcome, need for chemotherapy, follow up and mortality associated, if any. The need for chemotherapy was assessed according to

ing to WHO prognostic criteria which assigns patients to one of the three risk groups, taking into account, age, antecedent pregnancy B-hCG levels blood group, the No, size and site of mets, if any the size of the largest mass and any prior chemo therapy. High risk patients had score > 9 points while low risk < 5 points.

Patients were followed up via serial B-hCG levels. Histopathology was the diagnostic tool to diagnose GTD. Choriocarcinoma was diagnosed upon clinical presentation and investigations such as chest X-Ray etc. Data was analyzed via SPSS.

RESULTS

Total No. of Obstetrical admissions during five years study period were 28,828 and patients presenting with early pregnancy losses were 2270, a total of 31,098 pregnancies in 5 years, out of which 102 cases were diagnosed with GTD, making the 3.27/1000 pregnancies.

Among the socio demographic data age wise distribution showed that most of the patients belonged to age > 38 years i.e 58 (56.8%) (Table-I).

The parity column of the socio demographic data allocated majority of the patients as para > 4, i.e 50 (49%), while 44 patients were para 1 or less (43.1 %).

Vaginal bleeding was the commonest presenting symptom in 41 cases (40%). 25 cases presented with pain in lower abdomen (24.5%), followed by passage of moles in 19 cases (18.6%) hyperemesis gravidarum (not coordinating with the gestational age) in 15 cases (14.7%) and dyspnea in 02 cases (1%). (Table-II).

The antecedent pregnancies in all the patients were followed which was found to be hydatidiform mole in 64 patients (62.7%), miscarriage in 28 (27.4%) cases and 10 (9.8%) had full term pregnancy.

The diagnoses was H.mole in 6 (74.5%) cases, invasive mole in 23 (22.5%) patients and carcinoma in 02 patients (1.96%) Table-III. Majority of them underwent surgical intervention i.e 100 patient (98%). 84 patients (76%) underwent suction while 15 patients (22.9%) had hysterectomy as their treatment for invasive mole.

10 patients were destined to have chemotherapy, mostly adjuvant. Chemotherapy was given to the patients in collaboration with IRNUM hospital Peshawar. The criteria for chemotherapy was according to WHO prognostic criteria as already explained in materials and methods. High risk patients scoring > 9 were treated with multi agents while low risk patients, scoring < 5 were given (6.86%) single agent therapy 7 patients received single dose therapy (methotrexate, alternating tolinic and (6.86) while 03 patients (2.94%) received EMA CO regime with folinic acid.

Follow up was carried out by clinical examination and investigation, such as serum B-hCG levels, ultrasound examination and x-ray chest. Three further

courses of chemo therapy were given to the patients who received adjuvant therapy once B-hCG became undetectable. The patients were followed by B-hCG monthly for 06 months (for those receiving chemotherapy) or monthly till B-hCG was undetectable. Only one patient with choriocarcinoma died despite chemotherapy due to advance metastatic disease on admission.

DISCUSSION

Gestational trophoblastic disease is an entity characterized by the release of a peculiar tumor marker, B-hCG. It is a highly enable tumor condition with excellent prognosis if picked and to treated well in time. The most significant risk factor for this disease is past history in the same patient.¹⁰

Frequency of GTD in our study was 3.5/1000 deliveries. This frequency is lower as compared to other studies of our country.^{11, 12}

The reason may be the presence of IRNUM hospital adjacent to Khyber Teaching Hospital, Peshawar. Where most of the patients from periphery and private set ups are directly referred. One study by Melamed-Alexander et al.¹³

States that high incidence of mole in south Asia is generally due to low socio economic status and malnutrition. The most consistent risk factor found in every region and ethnic group is maternal age.¹⁴

Evidence suggests that h.mole arises as a consequence of defective ova.¹⁵ This defect is more common in extremes of ages.¹⁶

Vaginal bleeding was the commonest presenting symptom in our study. The same is reported by other studies.¹⁷

The diagnosis of H. mole in our study was typically made on clinical features, B-hCG levels and ultrasonography, especially by using high resolution transvaginal ultrasound technique which detects the disease much earlier. The diagnosis is confirmed on histopathology. These tests are simple and noninvasive. Doppler imaging is helpful in diagnosis of invasive, disease, recurrence, and follow-up.¹⁸

Majority of the patients in our study had H. mole (74. 5%) while others were diagnosed as invasive mole or choriocarcinoma. This is consistent with a study done in Thailand.¹⁹

Choriocarcinoma is a potentially fatal disease but the current management protocols have turned the tables. As in other studies, majority of the patients in our study were treated with suction and evacuation i.e 84 (76 %) while 15 (22.9%) underwent hysterectomy, for either invasive disease or persistent vaginal bleeding.

Malignant or invasive disease were treated with multiple drug chemotherapy and those with h mole

and raised B-hCG levels after evacuation were given single agent therapy. The duration ranged from 3-6 months with 03 doses of chemotherapy till the B-hCG levels were undetectable. This treatment protocol is in accordance with other studies of the country.²⁰

Overall complete cure was achieved in 99% patients while one patient died during chemotherapy due to advance disease²¹.

CONCLUSION

Gestational trophoblastic disease is still observed is common practice as marriages in early adolescence and reproduction till late years continue in our society. The disease is common in low socioeconomic group with malnourishment. The presence of Doppler sonography has made it convenient to detect the disease earlier. Proper management in early stages strongly improves the prognosis, as it's highly curable even in the presence of mets.

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