Gestational Trophoblastic Disease in a Tertiary Hospital in Nnewi, Southeast Nigeria.

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SUMMARY

Objective: This study was conducted to evaluate the prevalence of GTD and describe its clinical features and management in a tertiary level hospital in Nnewi Southeast Nigeria.

Methods: We studied retrospectively the cases of GTD that were proved histologically and managed in the department of Obstetrics and Gynaecology of Nnamdi Azikiwe University Teaching Hospital Nnewi over a 5years period (200 - 2008).

Results: The frequency of GTD in Nnewi is 4.6 per 100 deliveries. Ten (66.7%) of the cases were choriocarcinoma while 5 (33.3%) were hydatidiform mole. There was no case of invasive mole or placental site trophoblastic tumour (PSTT). The age range of the patients was 15 - 46 years with a mean of 31± 8.6 years. There was no significant association between age and GTD (X^2 = 4.5; p = 0.609) and between Parity and GTD (x^2 = 1.87; p = 0.171). Most of the patients (73.3%) presented in late second trimester and the commonest mode of presentation was abnormal vaginal bleeding. The symphysio - fundal height was more than the estimated gestational age in 9 (60%) of cases. All the patients made an earlier presentation in different peripheral hospitals and were managed as incomplete miscarriage prior to presentation in our hospital. The average duration of follow - up in these patients was 2.4 =3.2 weeks. Contraception use was documented in 3 (20%) of the patients.

Conclusion: There was a high prevalence of GTD and notably choriocarcinoma. The associated mortality was high. There was lack of suspicion of the pathology among the primary healthcare providers. This study suggests that all cases of evacuation products should be subjected to histopathological examination. There is the need to emphasize the role of adequate and appropriate counselling in the management of the patients with GTD. Call and recall system should be introduced in the management of patients with GTD to improve their compliance to recommended management standard. This will improve the prognosis of the condition in our women.

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Key words: gestational trophoblastic disease, tertiary hospital Southeast Nigeria.

INTRODUCTION

Gestational trophoblastic disease (GTD) is a spectrum of rare pregnancy complication which is derived from placental trophoblast with the potential to evolve to forms which can be a threat to life. The aetiology of GTD is not well understood. However, it has been associated with ethnicity, extremes of reproductive age, prior molar pregnancy, lower socioeconomic class, and diet[1,2]. Familial syndrome of recurrent hydatidiform mole has also been described[3]. GTD is suspected in patients with painless vaginal bleeding, hyperemesis gravidarium, thyroid storm, toxaemia prior to 20 weeks and positive serial HCG estimations. Ultrasound is a non invasive, safe, economical and relatively simple technique in the diagnosis and confirmation of GTD[4]. The treatment of GTD depends on the clinico histopathological type and may include suction evacuation, chemotherapy, hysterectomy and radiotherapy[5]. Follow up is essential in all cases of GTD and is based on weekly serial dosages of chorionic gonadotrophic hormones.

Gestational trophoblastic tumour is of great interest because of its excellent prognosis if diagnosed and treated on time and the potential for child bearing can be maintained[3,8,9,10]. The essence of this review is to determine the prevalence of GTD in Nnewi and to analyze their clinicapatholohical features.

PATIENTS METHODS

This is a descriptive study conducted in the department of Obstetrics and Gynaecology, NAUTH Nnewi over a period of 5 years (2004 2008). The folders of the patients treated for GTD were collected from the medical records department and data on their sociodemographic and clinical features were extracted. The data extracted were analyzed using SPSS for windows version 15.0.

RESULTS

There were 3193 deliveries in NAUTH during the period of this review, and 15 cases of gestational trophoblastic tumour were managed. Hence the frequency of GTD was 4.7 per 1000 deliveries. There were 10 (66.7%) cases of choriocarcinoma, and 5(33.3%) cases of hydatidiform mole. The age range of the patients was 15 46 years with a mean of 31±8.6 years. Although findings suggest that choriocarcinoma is commoner among younger women while hydatidiform mole is commoner among older women, this association is not statistically significant as shown in table 1. The majority 11(73.3%) of the patients had primary education, 3(20.0%) secondary education and 1(6.7%) had tertiary education. No statistical significant relationship was noted between the occurrence of GTD and parity (X^2 = 1.87;

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df=1; p = 0.171). The gestational age range at presentation was 12 24 weeks with a mean of 16.4±5.1 weeks. Table 2 shows the common modes of presentation of the patients. All the patients had suction evacuation as a primary treatment in a peripheral hospital before presentation. None of the products were sent for histological analysis by their health providers.

Two patients had repeat suction evacuation only, 11 (73.3%) cytotoxic therapy in addition to suction evacuation and 2 (13.3%) of the patient had suction evacuation, cytotoxic and hysterectomy. The patients were followed up between 2 and 12 weeks with a mean of 2.4 ±3.2 weeks. Contraceptive use was noted in 20% of the patients. Table 3 shows the common complications noticed in the patients. There were two maternal deaths giving a mortality ratio of 13.3% or 62.6 per 100,000 deliveries. The two maternal deaths occurred within 48 hours of admission.

Table 1: Age distribution and the type of GTD

Age range	Diagnosis	
	H.mole frequency (%)	Choriocarcinoma frequency (%)
15–19	0 (0)	1 (10)
20–24	1 (20)	2(20)
25–29	2 (40)	2 (20)
30–34	0(0.0)	1(10.0)
35–39	0 (0.0)	2 (20.0)
40–44	1 (20.0)	2 (20.0)
45–49	1 (20.0)	0 (0.0)
Total	**5(100.0)**	**10(100.0)**

X^2=4.5; p = 0.609

Table 2: Other clinical features of GTD

Clinical features	Frequency N = 15	Percentages (%) N = 100.0%
Lower abdominal pain + abdominal swelling + hyperemesis	6	40
Abdominal pain + hyperemesis	4	26.7
Dizziness	2	13.3
Abdominal swelling	2	13.3%
Abdominal swelling + thyroid toxicosis	1	6.7

• Bleeding per vaginam and amenorrhoea were common to all the patients

Table 3: Complications noticed in the patients

Complications	Frequency N = 15	Percentage (%) N = 100.0
Anaemia	8	53.3
Anaemia + pre eclampsia	3	20.0
Anaemia + shock	1	6.7
Anaemia + Hypertension + thyrotoxicosis + CCF	1	6.7
Anaemia + sepsis	2	13.3

DISCUSSION

The prevalence rate of 4.7 per 1000 deliveries noted in this study is similar to 4.06/1000 deliveries reported from Quetta[11] but higher than 1 per 332 deliveries reported from Onitsha Southeast Nigeria[12]. The Hydatidiform mole prevalence rate of 1.6 per 1000 found in this study is similar to 1.3 per 1000 deliveries reported from Birmingham, England[13]. Ethnicity (our women being from Igbo tribe of Nigeria only), under- reporting, improper/ inadequate medical record keeping, lack of universal histopathological analysis of products of miscarriage and ectopic pregnancy will possible affect the true incidence of this pathology. This study reveals a high incidence of choriocarcinoma in variance to the findings of other studies where the incidence of hydatidiform mole is usually higher[12,13,14]. The fact that all the patients first have had suction evacuation prior to presentation and those patients with hydatidiform mole in which suction evacuation was enough management would have ended up in the peripheral centers thereby tilting the ratio of H.mole to choriocarcinoma.

Although there is no statistical association between age and the occurrence of GTD, however choricarcinoma occurred most among younger women(X^2=4.5; p=0.609). This is in variance with other studies which demonstrated significant increase in the incidence of GTD at the extremes of reproductive ages and in women of high parity[11,12]. The occurrence of Choriocarcinoma on mostly women (60%) of low parity (<5) however gives credence to the suggestion that parity per se may not be an independent factor in the epidemiology of GTD. This could possibly have led to the inability of the primary healthcare providers to suspect GTD in any of the women. It is of great concern that majority of the patients presented late in second trimester and none of the women had their condition diagnosed at an asymptomatic stage. The mean gestational age at diagnosis is 16.5 weeks is higher than 11.5 weeks of amenorrhoea reported in Tunisia[16]. This contrasts with the current trend in the developed world where majority of the cases are being diagnosed early in pregnancy at the asymptomatic stage due to wide practice of routine ultrasound in early pregnancy[7]. The late presentation should have also contributed immensely to the high incidence of complications among the women.

Bleeding per vaginam, amenorrhoea and syphysio fundal height more than estimated gestational age were the commonest presenting symptoms similar to the findings in other studies[12,16]. All the patients had suction evacuation regardless of the size of the uterus as this is the preferred method of treatment in suspected cases of GTD[5,12]. It also provides specimen for histological analysis of the product of conception. Oxytocic was given during the procedure to produce uterine involution and to control bleeding. Injudicious use of oxytocics however may cause hyponatremia, fluid over load and deportation of the vesicles. Chemotherapy was introduced in cases of persistent rise or plateau of âHCG and in cases of choriocarcinoma. Prophylactic use of chemotherapy has remained controversial. However prophylactic chemotherapy can be a viable option in our setting because of poor follow up of our patients that is corroborated in other studies[17,18]. The contraception compliance was also very low at 20%. The low literacy rate of the patients, ignorance, poverty, poor communication and or inadequate health education cum counseling of these patients could be contributory factors. The mortality rate of 13.3% noted in this study is high compared with the reports of good prognosis

from developed nations. The early diagnosis and adequate treatment of this condition in developed nations could explain the documented good prognosis.

CONCLUSION

In conclusion there was a high prevalence of GTD and notably choriocarcinoma. The associated mortality was also high. There was lack of suspicion of the pathology among the primary healthcare providers. This study suggests that all cases of evacuation products should be subjected to histopathological examination. Early diagnosis will improve the prognosis of the disease. The post treatment follow up our patients should be improved upon.

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