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HYDATIDIFORM MOLE: INCIDENCE AND MANAGEMENT OUTCOMES IN A TERTIARY HOSPITAL IN ABUJA

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ABSTRACT

Background: Hydatidiform mole is an abnormal pregnancy of clinical and epidemiological importance because it affects women in the reproductive age group and is potentially fatal with a lot of associated morbidities. **Objectives:** To determine the incidence, clinical presentation and management outcome of Hydatidiform mole in University of Abuja Teaching Hospital. **Materials and Methods:** It was a seven year retrospective study of hydatidiform mole managed in University of Abuja Teaching Hospital between 1st January 2008 and 31st 2014. Data were extracted from the ward and theatre registers as well as patients' folders from the medical library and analyzed using descriptive statistics. **Results:** There were 12,204 deliveries during the study period and 37 cases of cases of hydatidiform mole giving an incidence of 0.3% (3 per 1000 deliveries). Majority of the patients were teenagers (29.4%) and most (32.3%) were primipara. The most common clinical features were amenorrhoea (94.1%) and bleeding per vaginam (88.2%). Seventeen cases (50.0%) had uteri larger than dates, while in 12 cases (35.3%) the uterine sizes were smaller than dates. Ovarian enlargement was noted in 17.6% of the cases. Complications in the form of haemorrhage occurred in 7 cases (20.6%). There were 3 cases (9.1%) of choriocarcinoma, all of whom did not present at all for follow-up and two of the three subsequently had hysterectomy due to excessive haemorrhage. Only two (6.1%) of the patients received chemotherapy. However, all patients (100%) were managed surgically using suction evacuation. there was no death from GTD during the study period. **Conclusion:** Hydatidiform mole is a remains an important cause of maternal morbidity in our Centre which is largely due to poor and inadequate follow-up. Better outcome is possible with good patients' counseling for improved follow up care.

KEYWORDS: Gestational Trophoblastic Disease, Hydatidiform Mole, Molar Pregnancy, Uath.

INTRODUCTION

Hydatidiform mole also known as molar pregnancy is a benign form of gestational trophoblastic disease (GTD) in which there is abnormal development of the placenta.[1] Gestational trophoblastic disease is a spectrum of placental disorders which include the benign partial and complete moles and the malignant invasive mole, choriocarcinoma and placenta site tumours.[1-2]

The hydatidiform mole is classified into two, complete and incomplete moles based on the morphology, karyotype and histologic appearance. The hydatidiform mole results from an abnormal pregnancy in which an anuclear ovum is fertilized. It is a complete mole when an empty ovum is fertilized by a haploid 23X sperm (which duplicates its chromosomes to yield a 46xx complement), or the anuclear ovum is fertilized by two sperm (23X and 23Y) to yield a 46xy karyotype. [1-3] The partial moles are triploid (69XXX or 69XXY) with two sets of paternal and one set of maternal chromosomes. [4]

The hydatidiform mole is characterized by wide spread and conspicuous proliferation of trophoblastic tissues without overt invasion of adjacent structures.[3,5] It is commoner at the extremes of reproductive age.[2] Women in their early teenage years, women older than 35 years or perimenopausal years are most at risk. It is also higher in nulliparous women, in patients of low economic status, women with previous history of molar pregnancy and in women whose diet are deficient in protein, folic acid, and carotene. [6]

The incidence of hydatidiform mole has a world wide variation, reported as 0.5-2.5/1000 pregnancies being highest in the far East.[7] In Nigeria, a figure of 1 in 379 deliveries has been reported.[8]

The diagnosis, counseling on contraception and potential chemotherapy are demoralizing and could be devastating to a young woman eager to replace the lost pregnancy. The Royal college of Obstetrician and Gynaecologists recommends that suspected complete molar pregnancies should be removed by suction evacuation, while

suspected partial molar pregnancy should generally be removed via medical termination as the fetal parts can present an obstacle to suction evacuation.[9] However, hysterectomy remains an option for patients with uncontrollable haemorrhage.[6]

Following evacuation, in the majority of cases, the residual trophoblast cells are unable to proliferate for long, and fall in serum beta human chorionic gonadotrophin (β-hCG) level is a very good estimation of declining activity.[10-14] Whether or not prophylactic chemotherapy following evacuation of complete hydatidiform mole should be offered to patients considered to be at high risk for persistent gestational trophoblastic disease or whom poor follow-up is anticipated remains controversial.[6] Follow up of patients with molar pregnancy in developing countries like ours is often challenging due to ignorance and poverty. It is against this backdrop, that this study which aims to determine the incidence, clinical presentation and outcome of management of hydatidiform mole in the University of Abuja Teaching Hospital was undertaken.

MATERIALS AND METHODS

This was a 7 year retrospective study of all the hydatidiform moles managed between January 2008 and December 2014 at University of Abuja Teaching Hospital, Gwagwalada. Information was obtained from the gynecological ward register, theatre records and patients' case notes. Information retrieved included socio-demography characteristics, clinical presentations, and mode of diagnosis, management outcomes and follow-up with serum β-hCG.

RESULTS

During the study period, there were a total of 37 cases of molar pregnancies diagnosed and treated in this Centre. However, only 34 case notes (91.9%) were retrieved and analyzed. The total number of deliveries during the study was 12,204 giving an incidence rate for hydatidiform mole of 0.3% (1 in 329).

Table. 1: Age Distribution of the Patients.

Age (years)	No	%
≤20	10	29.4
20-25	7	20.6
26-30	4	11.8
31-35	8	23.5
36-40	5	14.7
Total	34	100

The patients' age ranged from 14-40 years. Hydatidiform mole was highest (29.4%) among the teenagers followed by 23.5% seen in patients who were between 31-35 years. The lowest (11.8%) was recorded in the age group of 26-30 years.

Table. 2: Parity Distribution of Patients.

Parity	Number	Percentage
0	5	14.7
1	11	32.3
2	7	20.6
3	4	11.8
4	2	5.9
≥ 5	5	14.7
Total	34	100

The parity of the patients ranged from 0 to 7. The primiparous patients had the highest (32.3%) incidence of hydatidiform mole in this study. Both nulliparous and grandmultiparous groups had equal cases (14.7%) each.

Table. 3: Clinical Features of Hydatidiform Mole.

Clinical features	Number	Percentage
Amenorrhea	32	94.1
Vaginal bleeding	30	88.2
Excessive vomiting	4	11.8
Lower abdominal pain	12	52.9
Anaemia	6	17.6
Pregnancy induced hypertension	1	2.9

Table. 4: Uterine Size.

Uterine size	Number	Percentage
Larger than date	17	50
Smaller than date	12	35.3
Appropriate for date	5	14.7
Total	34	100

Amenorrhoea was the commonest clinical presentation in this study as it occurred in 32 (94.1%) of the cases. This was followed closely by bleeding per vaginam which was seen in 30(88.2%) of the patients. Uterine size larger than the gestational age was seen in 17 (50%) and smaller than gestational age in 12 (32.3%) of cases. There was ovarian enlargement in 6 (17.6%) of the cases.

Table. 4: Complications of Hydatidiform Mole.

Complication	Number	Percentage
Haemorrhage	7	20.6
Sepsis	1	2.9
Thyrotoxicosis	0	0
Invasive mole	0	0
Choriocarcinoma	3	8.8
Hysterectomy	2	5.9

Haemorrhage was a complication of hydatidiform mole in 7 (20.6%) of the cases. Three of the cases (9.1%) developed choriocarcinoma 2(6.1%) of whom had hysterectomy. There were no cases of sepsis, thyrotoxicosis or invasive mole recorded in the study.

Table. 4: Duration of Follow-up.

Duration (months)	Number	Percentage
0	20	58.9
1	8	23.5
2-5	5	14.7
6-11	1	2.9
≥12	0	0
Total	34	100

Majority (58.9%) of the patient did not present for follow-up and none was followed-up for up to 1 year.

DISCUSSION

The incidence of hydatidiform mole in this study was 0.3% (1:329) which is almost similar to 1:357 in Jos, north-central Nigeria, but higher than that from Zaria (1:452), Port Harcourt (0.23%) and Ile-Ife (0.2%), Nigeria.[12,15-17] It is however, lower than 0.4% in Nnewi, 0.58% in Lagos, 0.54% in Ibadan, all in Nigeria.[18-20] The reason for this geographical variation is unknown but the fact that these are hospital based studies in tertiary referral Centers in an environment with varying degrees of hospital utilization may be contributory. Indonesia has one of the highest incidence of hydatidiform mole (1:57).[3]

Maternal age is associated with risk of hydatidiform mole with higher incidence among women under the age of 20 years and rising after the of 40 years.[21] This is partly supported by findings in this study as 29% of the patients were teenagers. However, none of the patients in this study was over 40 years.

Primiparas formed the largest proportion of the patients (32.3%) in this study. This is at Variance with the reports from some authors where most patients were of high parity.[19,22] Other authors however found no significant association with parity.[23,24] Majority of the patients (94.1%) presented with amenorrhoea making it the commonest presenting complaint in this study. This was followed by vaginal bleeding (88.2%). This agrees with the documentations in the literature where more than 90% of the patients with molar pregnancy presented with abnormal vaginal bleeding.[24,25] Lower abdominal pain was also found to be a common complaint as it was seen in 52% of the cases. It is therefore necessary for all patients with such complaints in early pregnancy to have an ultrasound scan which is reliable in the diagnosis of this condition.[23] Ultrasound was used in the diagnosis of 82.6% of the cases in this study. It has also aided earlier diagnosis especially in the first trimester. Other clinical features seen in this study were pregnancy induced hypertension (2.9%) and hyperemesis gravidarum (11.8%). Uterine size larger than the dates was found in 50% of the cases, while 35.3% were found to be smaller than the dates and 14.7% compatible.

Suction curettage was the method of uterine evacuation in all the patients in this study. This is the recommended management modality because it allows for rapid evacuation of the uterus irrespective of uterine size with minimal blood loss.[26] It also provides specimen for histological assessment of the product of conception, reduces the danger of uterine perforation, minimizes injury to the blood vessels and therefore reduces the chance of trophoblastic tissue embolism.[26] It is also associated with a low risk of chemotherapy usage for gestational trophoblastic malignancy.[26]

Haemorrhage is one of the commonest complications of hydatidiform mole and occurred in 7(20.6%) of the cases in this study. There 3(8.8%) cases of choriocarcinoma out of which 2(5.9%) had subtotal hysterectomy due to uncontrollable haemorrhage. This was comparable to findings from Kano where 10.5% progressed to choriocarcinoma.[27] These patients that had choriocarcinoma never presented for follow-up; two (5.9%) of them received EMACO regimen and one (2.9%) had methotrexate.

The follow-up rate was as low as 38.2% which was similar to 32% found in Jos study and findings of other authors in different part of Nigeria all corroborated the fact that the follow-up of patients in our environment is poor.[12,17,20,23] Only one patient was followed-up beyond 6 months and none up to 1 year.

Hydatidiform mole remains an important cause of maternal morbidity in our Centre which is largely due to poor and inadequate follow-up. Better outcome is possible with good patients' counseling for improved follow up.

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