Hydatidiform Mole in University of Ilorin Teaching Hospital: An 8 Years Review

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Abstract: This is an 8 years review of hydatidiform mole at University of Ilorin Teaching Hospital, Kwara State. The objective of this study is to determine the incidence, clinical presentation and management of hydatidiform mole in this centre. All cases of hydatidiform mole seen from January 1999 to 31st December 2006 at the University of Ilorin Teaching Hospital were identified through the records of names with the pathological diagnosis of hydatidiform mole kept in the medical records department of the hospital. The case records were then retrieved and the data analyzed. There were 72 cases of hydatidiform mole and 17,223 deliveries during the period of study. The incidence of hydatidiform mole during the study period was 1 in 239 deliveries. Pre-operative diagnosis was made in all of the cases. Bleeding per vaginam was the main presenting complaint in 63 cases (87.5%). About 71 cases (98.7%) were treated with vacuum aspiration while one of the patients had hysterectomy. Follow up clinic attendance was poor as only 22.2% were adequately followed up for 2 years. Hydatidiform mole remains a major premalignant tumor of the female genital tract. While clinical presentation, diagnosis and treatment outcomes are satisfactory, follow up of affected patients have been poor and pose serious challenges.

Key words: Hydatidiform mole, clinical presentation, management, 8 years review, pre-operative diagnosis

INTRODUCTION

Hydatidiform mole is a benign form of a spectrum of neoplasms that affects trophoblastic tissue. It has been described as an abnormal pregnancy characterised grossly by multiple grapelike vesicles filling the uterus (Markusen and O'Quinn, 2003). Hydatidiform mole is unique among human tumours in its acute oncogenesis and the extremely short interval between the development of the disease and its diagnosis. Sonographic diagnosis and hormonal follow up have been crucial.

This study looked at the epidemiology and management of patients with hydatidiform mole at UITH over an 8 years period from January 1993 to December 2000.

MATERIALS AND METHODS

This was a retrospective study of cases of hydatidiform mole seen from January 1999 to 31st December 2006 at the University of Ilorin Teaching Hospital Ilorin (UITH), Nigeria. Cases were identified through the records of names at the records department with the pathological diagnosis of hydatidiform mole. The case records were then retrieved and the data analyzed.

A total of 72 case records out of the identified 73 cases were retrieved. All 72 patients included in the report had serial urinary HCG analyses done. The criteria for diagnosis was based on:

- Clinical impression from history and physical examination
- Confirmatory test including urinary HCG level determined by pregnancy test in dilution and ultrasound scanning of the uterus
- Progression to choriocarcinoma was diagnosed based on clinical presentation, evidences of metastasis on chest X-ray and histopathological examination of uterine curetting, in addition to high levels of HCG. No attempt was made to differentiate between invasive mole and metastatic choriocarcinoma

Patients were followed up for a maximum of 2 years post evacuation. They were initially seen every 2 weeks after evacuation where at each visit history of vaginal bleeding, cough and haemoptysis were inquired for. Examination for vaginal secondaries, sub-involuted uterus and regression of theca lutein cyst was performed. Urinary HCG level was also determined. Thereafter

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patients were seen monthly for 1 year and every 3 months in the 2nd year. The HCG level determination was done for at least 6 months until it became undetectable for 3 consecutive visits.

RESULTS AND DISCUSSION

There were 72 cases of hydatidiform mole from 1999-2006. During this period under review, there were 17,223 deliveries, giving an incidence of 1 in 239 deliveries. The age ranged between 18 and 41 years with a mean age of 27.5 years. The 9 (21.5%) were <20 years while 3 (4.2%) were 40 years and above. The 54 (75%) were in the age group 20 and 34 years as shown in Table 1. Patients of low parity (0-2) constituted 53.8% while those of high parity (3-7) constituted 47.2% of cases. The peak parity was Para 3 with 18 cases (25%) as shown in Table 2.

The majority of the patients were of low socioeconomic class as 69 (95.8%) of them did not go beyond secondary education or had education below university level. None of the husbands belonged to the class of professionals, top civil servants or businessmen as shown in Table 3.

Table 1: Age distribution of patients with hydatidiform mole in UITH

Age	No. of patients	Percentage
15-19	9	12.5
20-24	12	16.7
25-29	24	33.3
30-34	18	25.0
35-39	6	8.3
≥40	3	4.2
Total	72	100.0

Table 2: Parity distribution of patients with hydatidiform mole in UITH

Parity	No. of Patients	Percentage
0	10	13.9
1	15	20.8
2	13	18.1
3	18	25.0
4	9	12.5
≥5	7	10.0
Total	72	100.0

Table 3: Educational level of patients and husbands occupation

Educational status	No. of patients	Percentage
No schooling or up to 1° level only	42	58.3
2° or 3° below the university	27	37.5
Education up to the university level	3	4.2
Total	72	100.0
Husband's occupation		
Professional, top civil servants, politicians and businessmen	0	0.0
Middle level bureaucrats, politicians, skilled artisans and well to do traders	21	29.2
Unskilled workers and those in general whose income would be at or below the national minimum wage	51	70.8
Total	72	100.0

Bleeding per vaginam was the most common presentation occurring in 63 (87.51%) of the cases. All patients with symptoms had bleeding per vaginam. This was followed by abdominal pain with which 30 patients (41.7%) presented. Other symptoms include passing of vesicles per vaginam, hyperemesis, etc. Several patients presented with multiple symptoms. The period of amenorrhoea at diagnosis ranged from 8-42 weeks with a mean of 18.6 weeks. The 11-19 weeks of amenorrhoea group was the most common group, making up 45 (62.5%) of the cases. This is shown in Table 4.

In terms of treatment, 80.6% of cases had suction curettage while one patient had hysterectomy following 20 weeks amenorrhoea having completed her family. About 13 patients (18.1%) had oxytocin induction followed by suction curettage. Five cases (6.9%) were complicated by sepsis while 2 (2.8%) had uterine perforation during curettage. Thirteen (18.1%) patients attended follow-up clinic for 3 months or less while 14 (19.5%) attended for 4-5 months. About 16 (22.2%) were followed-up for 2 years. Of the 16 patients followed-up for 2 years, 3 (18.8%) had a recurrence of hydatidiform mole, 2 (12.5%) had malignant transformation to choriocarcinoma. About 6 (37.5%) got pregnant within the 2nd year of evacuation (while still being followed up) while 5 (31.3) were discharged from the clinic.

Reports from previous studies have shown that hydatidiform mole is more prevalent in Asia, West Africa and Latin America.

The incidence of 1:239 deliveries in this study is comparable to 1:344 in a previous study in this centre published in year 2000 (which had looked at the earlier 10 year period) (Aboyeji and Ijaya, 2000). It is also similar to the incidence of 1:262 deliveries reported from Maiduguri in Northern part of Nigeria (Audu *et al.*, 2009). This further confirmed that the condition is common in our environment.

It is however lower than the incidence of 1:172 and 1:184 deliveries reported from Ibadan and Lagos, respectively (Ogunbode, 1978; Agboola and Abudu, 1984). It is higher than the incidence of 1:588 deliveries reported from Ile-Ife (Eniola *et al.*, 2001).

Table 4: Gestation of hydatidiform mole at presentation

Period of amenorrhoea (weeks)	No. of patients	Percentage
<10	6	8.3
11-19	45	62.5
20-29	9	12.5
30-39	6	8.3
>40	2	2.8
Not stated	4	5.6
Total	72	100.0

Djamhoer reported that many experts agree that the risk of having a hydatidiform mole is higher in pregnancies under 20 years and above 35 years of age with a progressive increase after 40 years (Howie, 1995; Jacob *et al.*, 1982). The finding in this study is not in support of this as 24 (33.3%) patients were in the 25-29 year age bracket while just 9 (12.5%) were <20 years and 3 (4.2%) were older than 40 years. This is however, similar to the experience of other researchers (Jacob *et al.*, 1982; Zvandasara, 1994; Buckley, 1984; Hanson, 1982; Akinkugbe, 1996).

A possible explanation for this is the low level of education of the patients who may not know their true age. The mean age of presentation obtained in this study is 27.5 years that is consistent with that obtained in Ibadan (Audu *et al.*, 2009). In this study 53.8% of patients were of low parity while 47.2% of cases were of high parity. Hence, high parity was not an important aetiological factor. However, several researchers have implicated high parity as an aetiological factor (Buckley, 1984).

Low socio-economic status was found to be associated with hydatidiform mole in this study as none of their husbands belonged to the class of professionals or top civil servants and 95.8% of the patients had education below university level. Low socio-economic status and malnutrition are commonly seen in populations with the highest rates of hydatidiform mole but most current opinion agrees that these are not significant risk factors themselves (Hanson, 1982). However, low socioeconomic status is not a universal findings as it is not supported in some studies (Jacob *et al.*, 1982).

Bleeding per vaginam was the most common presentation (87.5%). This is consistent with other reported series (Agboola and Abudu, 1984; Jacob *et al.*, 1982; Zvandasara, 1994). Hydatidiform mole is the third most common cause of vaginal bleeding in early pregnancy after abortion and ectopic pregnancy (Chong and Koh, 1999). Hence, it is of utmost important that all patients with complaint of bleeding in early pregnancy should have ultrasound scan which is very reliable in the diagnosis of the condition (Jacob *et al.*, 1982; Buckley, 1984). This will help prevent late diagnosis and treatment. The accuracy of ultrasonography in the diagnosis of hydatidiform mole is user dependent and is in the region of 98% in good centres (Stone and Bayshawe, 1979). Missed abortion and uterine myoma are important differential diagnosis.

A single HCG determination cannot be diagnostic of molar pregnancy even when the levels are high. Unusually high levels of HCG can occur in normal pregnancies. The measurement of serum HCG by radioimmuno-assay is crucial in the diagnosis and follow-up of patients with hydatidiform mole and choriocarcinoma. In this study, urinary HCG as determined by pregnancy test in dilution was used because of lack of facilities for radioimmunoassay. Other pre-treatment workup should include a chest X-ray, complete blood count and a coagulation profile.

The treatment of choice for hydatidiform mole is vacuum aspiration as was used in 98.7% of patients in this study. It allows for rapid evacuation of large uteri and is associated with a low risk of chemotherapy usage for gestational malignancy (Zvandasara, 1994).

Use of prostaglandin or oxytocin is not necessary prior to vacuum aspiration. An increased risk of persistent trophoblastic disease, bleeding and malignant sequelae had been reported when other methods were used as the primary method of evacuation (Markusen and O'Quinn, 2003; Akinkugbe, 1996; Agboola, 1988). Other methods of evacuation of the uterus that have been used include synocinon drip induction, laminaria tent induction, dilatation and curettage and hysterotomy.

If the patient is older than 40 and no longer desires to maintain fertility hysterectomy as in one of the cases may be the treatment option (Hayashi *et al.*, 1982). Reports on hysterectomy are however conflicting and some studies have proven that the procedure did not reduce the incidence of metastatic disease. This therefore cannot justify the risk of morbidity associated with any major surgical procedure like hysterectomy (Gerulath *et al.*, 2002).

Hydatidiform mole has been reported as the most common precursor to choriocarcinoma (40-80% of choriocarcinoma) (Zvandasara, 1995). The risk of developing choriocarcinoma after a hydatidiform mole is about 1000 times greater than after a normal pregnancy. Total of 12.5% of the cases followed-up progressed to choriocarcinoma.

In this study, there were a significant number of patients who did not practice any form of contraception even though the data was not complete. Women should be advised to avoid pregnancy until HCG levels have been normal for 6 months following evacuation of a molar pregnancy and for 1 year following chemotherapy for gestational trophoblastic tumour (Akinkugbe, 1996; Adeleye, 1984). Barrier methods have the least side effects but compliance is the problem. Oral contraceptives are better because they are more effective in preventing pregnancy. However, the use of combined oral pills before HCG level become undetectable is associated with delay in the fall of HCG titre and increased risk of malignant sequelae (Gerulath *et al.*, 2002). The follow up clinic attendance was poor as only 22.2% of the patients

attended follow-up clinic for the mandatory 2 years. This has also been the experience of some researchers (Ogunbode, 1978; Sebire *et al.*, 2003). One possible reason for this behaviour is the patients' poor understanding of the disease condition as they believe they are well once their presenting complaints are taken care of. However, it is advised that the follow-up period in patients with partial hydatidiform mole should not be more than a year because of the rarity of post evacuation sequelae. The prognosis following hydatidiform mole is good, especially with good follow up and serial HCG assessment (Sebire *et al.*, 2003). Diagnosis prior to evacuation of uterus is important as it aids patients' management. About >98% of women who become pregnant following a mole conception will not have a further hydatidiform mole and these pregnancies are at no increased risk of other obstetric complications (Sebire *et al.*, 2003).

CONCLUSION

All patients should be educated as to the need for initial contraception after remission. To achieve the best results in its management, a standard protocol and the establishment of a National trophoblastic centre is recommended.

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