

TEN YEARS OF GESTATIONAL TROPHOBLASTIC DISEASE COMPLETE HYDATIDIFORM MOLE

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SUMMARY

A descriptive study was done on 105 cases of hydatidiform mole. The ratio of moles to deliveries was 1 in 503. The clinical profile of these patients, their complications and treatment are described. Twenty-two (21%) developed persistent trophoblastic disease.

INTRODUCTION

Gestational trophoblastic disease (GTD) refers to a spectrum of neoplasms arising in the chorion with the benign hydatidiform mole at one end and, the highly malignant choriocarcinoma at the other extreme. It arises from the fertilization of an anucleate ovum by one or more sperms.

In the complete mole there is proliferation of trophoblast without concomitant development of the fetus. The karyotype is most often 46 XX that is paternally derived. The partial mole on the other hand, is associated with triploidy. A fetus is usually present and only a portion of the placenta may show a molar pattern.

The reported incidence of GTD in India ranges from 1 in 190 to 1 in 650 deliveries (Rao, 1970). Separate figures for hydatidiform mole and persistent trophoblastic disease are not stated in most studies. The aim of this study was to estimate the incidence of hydatidiform mole and obtain a clinical profile of its presentation and eventual outcome, using current terminology and standard definitions.

METHODS

A descriptive study was done by reviewing all charts of patients with hydatidiform mole seen at the Christian Medical College Hospital, Vellore between 1981 and 1990. Information was extracted with the help of a proforma that specifically looked at clinical presentation, risk factors for persistent trophoblastic disease (PTD) and, outcome.

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There were 105 cases of complete hydatidiform mole and 52,842 deliveries during this ten year period. PTD was defined by one of the following : i) persistent uterine bleeding after check curettage, ii) metastases, iii) persistent HCG 12 weeks after evacuation, iv) rise or plateau of serum HCG over three successive visits. Pregnancy had to be excluded before making a diagnosis of PTD.

RESULTS

The ratio of complete moles to deliveries over 28 weeks was 1 : 503. Patient characteristics are given in Table I. The ages of these women ranged from 16 to 40 years with a mean of 23.9 and standard deviation of 5.4 years. Forty-two (40%) were primigravida. Most of the records did not mention consanguinity hence this information could not be obtained.

The clinical presentation is depicted in Figure 1. The most common presentation was bleeding per vaginum after a period of amenorrhoea. Twenty patients had more than one symptom. The most common sign was uterine size larger than expected from menstrual dates (61%). Two cases were diagnosed on routine antenatal ultrasound ex-

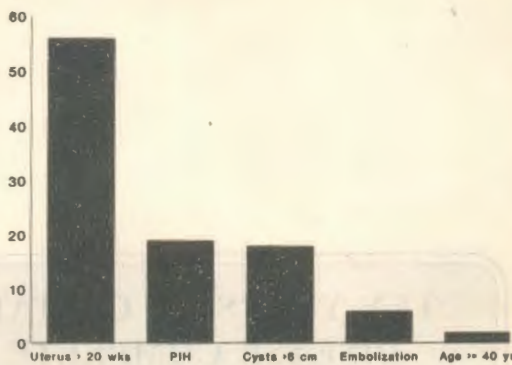


Fig. 2 : Risk factors for Persistent Trophoblastic Disease (Percentage Distribution).

PIH - Pregnancy induced hypertension.

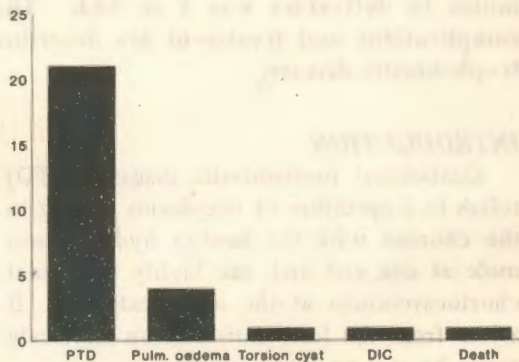


Fig. 3 : Complications (%) Due to Hydatiform Mole.

PTD - Persistent trophoblastic disease.
DIC - Disseminated intravascular coagulation.

amination after this became available in 1986 in our hospital.

The risk factors for the development of PTD are given in Figure 2: At least one risk factor was present in 70(66.7%) and two in 32(30.5%). Chest x-ray in 6 patients showed evidence of embolization and 5 of these patients had haemoptysis on admission. Most

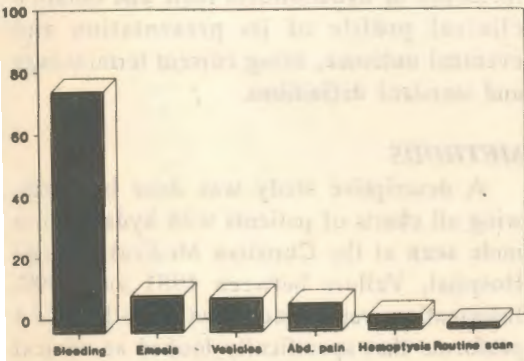


Fig. 1: Clinical Presentation (%) in 105 Cases of Hydatiform mole.

Table I

Patient Characteristics

Factor	Number	Percentage
Age		
Teens	17	18
20 - 35 yrs	81	85
Over 35 yrs	7	7
Gravidity		
Primigravida	42	40
Multigravida	63	60
Blood Group		
A	17	17
B	35	36
O	37	38
AB	9	9
(Not recorded = 7)		
Religion		
Hindu	92	88
Christian	8	7
Muslim	5	5

mole were evacuated by suction but a few had curettage or hysterotomy. Prophylactic chemotherapy was given in 16 patients. Thirty-eight patients had a check curettage and 12 had hysterectomy.

The complications are shown in Figure 3. One patient died after suction evacuation due to acute pulmonary oedema. PTD developed in 22 (21%) patients. However, there was no follow-up in 38 patients and only 16 were followed up for over 6 months. Five patients subsequently became pregnant.

DISCUSSION

The "incidence" of GTD in Asia ranges from 1/80 to 1/800 deliveries (Wei, 1961; Teoh, 1971) while in the Western hemisphere it is between 1/1000 and 1/2000 deliveries

(Bagshawe, 1986; Hayashi, 1982). These are not really incidence figures but ratios. Ideally, the denominator should be the total number of pregnancies in one year for the particular geographical area being studied. The other problem with these figures is that they are hospital based and not representative of the community at large. The true denominator would be the total number of pregnancies for the entire catchment area of the hospital. Though it is plausible that true geographical and genetic differences exist, it is like that, when the above factors are taken into account, true incidence figures in different countries would be more or less the same.

The majority of patients present with bleeding per vaginum in early pregnancy. The other important symptoms are hyperemesis and passing of vesicles per vaginum. In this series, 5 patients presented with haemoptysis. All these symptoms make the patient seek medical care. Hence, invariably all moles in the community are seen at least at the secondary level hospital.

The risk factors for PTD are not well understood. Women with bilateral lutein cysts larger than 6 cm seem to have a 75% incidence of postmolar sequelae (Montz, 1988). Uterine size greater than expected is associated with a risk between 25% and 48% (Morrow, 1977). In this study two risk factors were present in 30.5% of patients but only 21% developed PTD. May be uterine size over 20 weeks and pregnancy induced hypertension are not very good predictors. Using discriminant analysis, it was possible retrospectively to assign only 69% of patients into low and high risk groups (Parradini, 1988). Newer laboratory techniques such as free beta HCG assay and flow cytometry may improve the ability to predict the development of PTD.

Follow-up of patients is particularly difficult in developing countries since

patients do not think it is worth the expenses. Unfortunately 36% did not have any follow-up whatsoever. Ninety-eight percent of patients develop PTD within 6 months (Lewis, 1976). In this series, 85% had follow-up for less than 6 months. It is likely that more than 21% actually developed PTD.

In conclusion, more work needs to be done to identify patients at high risk of developing PTD and patients have to be followed up for at least 6 months after evacuation of their hydatidiform mole.

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Group	Number	Follow-up	Developed PTD
Group A	17	17	11
Group B	26	23	12
Group C	28	27	13
Group D	9	8	4
Total	80	75	40

made were reviewed by another doctor and a low had diagnosis of hydatidiform mole. The chemotherapy was given to 18 patients. Thirty-eight patients had a 100% complete and 12 had partial remission.

The remission rate was 84% in 45 patients. Our partial remission rate was 67% in 22 (21%) patients. This rate was an follow-up in 22 groups and only 10 were followed up for more than 6 months. First patients with partial remission.

DISCUSSION

The incidence of GTD in Asia ranges from 1.86 to 1.80 deliveries (Wong 1981). In 1977, 1978 and 1979, the incidence was 1.86, 1.80 and 1.80 deliveries respectively.

The majority of patients present with bleeding per vagina in early pregnancy. The other important symptoms are hypertension and passing of vesicles per vagina. In this series, 2 patients presented with an ectopic. All the symptoms were the present and medical care. There were 45 patients in the study and 21 were followed up for 6 months or more.

The risk factors for PTD are not well understood. Women with bilateral molar pregnancies have a risk of 10% to 15%. The incidence of postmolar ectopic pregnancy is 1.0%. There is a greater risk reported in molar pregnancies with a risk between 1.5% and 4.0% (Morrow, 1977). In this study, two patients were present in 20.5% of patients but only 11% developed PTD. May be women who have 2D weeks and pregnancy related hypertension are not very good candidates for dilatation and curettage. It was found that dilatation and curettage only 60% of patients into low risk high risk groups (Gardner, 1980). Newer laboratory techniques such as beta HCG assay and the cytotoxic may improve the ability to predict the development of PTD.

Follow-up of patients is particularly difficult in developing countries where