

Hydatidiform mole: problems in early diagnosis

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HYDATIDIFORM MOLE and its complications can mimic various medical conditions such as pulmonary tuberculosis, anaemia, and cerebro-vascular accidents. As can be seen from one of the cases in this series, unless this condition is diagnosed early and promptly treated, the patient's life may be placed in considerable danger.

Materials and Method

Between January, 1968 and July, 1970, there occurred 14 cases of hydatidiform mole confirmed by histology. These cases have been studied in detail and are presented here. These patients were initially seen either at the Accident & Emergency Unit or the Gynaecological Outpatient Clinic of the University Hospital. On admission, detailed histories were recorded, followed by physical examination and the diagnosis was discussed with the lecturer or consultant on duty.

The incidence of hydatidiform mole in South-east Asia, as shown by Tow and Fox (1966) of Singapore, and Acosta-Sison and Baja-Pamlilio (1951) of the Philippines, is very high. They were quoted as 1 in 169 and 1 in 145 pregnancies respectively. In Australia, (Beischer et al 1970) and the United States of America (McCorriston, 1968), the incidence is 1 in 710 and 1 in 1,326 pregnancies respectively.

However, in spite of the high index of suspicion by the medical staff in this unit with regard to this disease, in five cases the diagnosis was initially missed on admission. In view of this, it was considered essential to review some of the difficulties encountered in diagnosis.

The clinical features and the difficulties encountered in interpreting the ancillary aids available at this hospital will be discussed.

Table I

Case No.	Age	Gravida	Parity	Time Interval since last pregnancy in years	Diagnosis on Admission
1	24	4	3	2	Hydatidiform mole.
2	32	7	6	3	Threatened abortion.
3	25	3	2	2	Hydatidiform mole.
4	21	1	0	—	Hydatidiform mole.
5	48	4	3	23	Hydatidiform mole.
6	31	3	2	4	Threatened abortion.
7	31	3	2	2	Hydatidiform mole.
8	23	5	4	1	Septic abortion.
9	25	3	2	2	Hydatidiform mole.
10	36	5	4	5	Threatened abortion.
11	24	3	2	2	Hydatidiform mole.
12	24	?	0	—	Missed abortion.
13	30	3	2	3	Hydatidiform mole.
14	25	3	2	1	Hydatidiform mole.

Age

It is important to realise that hydatidiform mole can occur in any woman of child-bearing age. Earland (1926) commented that before the age of 40, there was no evidence of a significant correlation between age and incidence. His statement, however, has not been substantiated by Findley (1917), Smalbraak (1957) and Chun (1964). These authors were able to show that there is a relatively high incidence of molar pregnancy in the early and towards the end of the reproductive age. Chun (1964) found that the average age of patients with molar pregnancy was 31 years. There was a marked increase in the incidence (6 times) after 39 years. In this small series, nine of the 14 patients were below the age of 30.

Parity

The average parity of the patients was 2.4, and seven patients (50 per cent) were of para 2 or less. In Hongkong and Singapore, Chun (1964) and Tow (1964) showed that there was a higher incidence of molar pregnancy from the third pregnancy onwards and both these workers had shown that for parity 11 and over, the incidence of molar pregnancy was ten times that of normal pregnancy.

Results and Discussion

This series, however, is too small to have any statistical significance. Among the Caucasian patients, however, there was no correlation between multiparity and the frequency of molar pregnancy. This was clearly shown by Beischer

et al. (1970) of Australia and MacGregor (1969) of the United States. Beischer commented that 80 per cent of his patients had fewer than three viable pregnancies.

Table II

Presenting Complaints	Number of Cases
Uterine bleeding	14
Amenorrhoea	13
Uterus big for dates	12
Abdominal pain	6
Hyperemesis	6
Passage of molar tissue	5
Toxaemia	4

Uterine Bleeding

This is the most common symptom in molar pregnancy (Beischer et al 1970; Holman and Schirmers, 1948). In this group, all 14 patients had complained of vaginal bleeding. It is usually preceded by a period of amenorrhoea and the type of bleeding may vary from intermittent spotting to continuous loss and it may last for days or weeks. It usually occurred most frequently between eight and 16 weeks. Massive haemorrhage which led to death occurred in one patient. She was initially admitted as a case of threatened abortion. Death from haemorrhage has similarly been reported by Chun et al. (1964), Holman and

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Schirmers (1947) and Acosta-Sison and Baja-Pamlilio (1951). These cases clearly reflect the urgency in making a correct diagnosis in molar pregnancy.

Table III

Uterus Big for Dates

Case No.	Amenorrhoea in Weeks	Uterine Size in Weeks
1	17	22
2	8	24
3	15	22
4	22	20
5	16	24
6	12	14
7	10	10
8	17	24
9	8	22
10	12	12
11	10	8
12	20	12
13	16	24
14	11	20

Table III shows the relationship of the uterine size to the period of amenorrhoea. Out of 14 cases, nine cases presented with uterus big for dates, while in three cases the uterine size was small. In Case No. 10, the uterus corresponded to the period of amenorrhoea. In Case No. 11, the patient was referred by a general practitioner after dilatation and curettage of what was thought to be an incomplete abortion. It is seen that excessive uterine enlargement is not pathognomonic of molar pregnancies. This has reaffirmed the view that a uterus of normal or small size does not exclude the diagnosis of molar pregnancy. The incidence of uterus small for dates may be as high as 37.9 per cent (MacGregor, 1969).

Abdominal Pain

This symptom is to be usually expected during expulsion of molar tissue. However, in this present study, only two patients had associated abdominal pain during passage of molar tissue. Abdominal pain without expulsion occurred in seven patients. In Chun et al (1964) series, 34 per cent of patients complained of abdominal pain before the onset of evacuation. She suggested that the mechanism of the pain is due to rapid uterine enlargement.

Hyperemesis

Patients with molar pregnancy often alleged that nausea and vomiting was much more severe than they experienced in previous pregnancies. This occurred in seven patients. In a large series by Chun et al (1964) and Beischer et al (1970), the incidence was 17 and 29 per cent respectively.

Toxaemia

Among the 14 patients, four had a diastolic blood pressure of 90 mm. Hg. or above. Only one patient had a severe degree of hypertension with a blood pressure of 210/100 mm. Hg., associated with ankle oedema. There were no patients with proteinuria.

Several symptoms of toxaemia, such as vomiting, severe headache, hypertension, oedema, albuminuria occurring in the first half of gestation, are said to be common in molar pregnancy, and they are mostly associated with rapid uterine enlargement, as in a quickly growing mole (Smalbaak, 1957). The validity of this statement is supported by Chun et al (1964) in that 72 per cent of their cases of severe toxaemia had the uterine fundus above the umbilicus. In the present series, there are no cases in which the uterine fundus was above the umbilicus.

The incidence of toxaemia in molar pregnancies varies between 12.5 per cent (Beischer et al 1970) and 50 per cent (Chun et al 1964).

In these cases, the blood pressure invariably returned to normal after evacuation of the mole. However, in 35 cases of eclampsia in association with molar pregnancy, Mueller and Lapp (1949) commented that three women had eclampsia after delivery of a mole.

Passage of Molar Tissue

The diagnosis of molar pregnancy would have been much easier if there was a history of having passed molar tissue. However, only six patients had this history. To await the passage of molar tissue, before a diagnosis is made, is certainly not ideal, as there may be associated excessive haemorrhage, shock and infection, at the time of spontaneous evacuation of molar tissue.

Luteal Cysts

The incidence of luteal cysts in molar pregnancy varies between 10.4 per cent (MacGregor, 1969) and 73.7 per cent (Beischer et al 1970). The presence of bilateral luteal cysts, however, is difficult to diagnose because of the associated presence of a gravid uterus. The cysts usually have soft thin walls which make them difficult to

palpate. It is therefore not surprising that luteal cysts were not detected in any of the patients in this series. Luteal cysts are probably caused by stimulation of the ovary by the high H.C.G. level. However, they usually disappear spontaneously after evacuation of the mole. In view of this, active treatment of the cysts is not necessary unless complicated by torsion or rupture.

Doptone

The Doptone is a valuable ancillary aid in the detection of the presence of viable intra-uterine pregnancy. It is an ultrasonic detector utilising the Doppler shift phenomenon (the apparent change of frequency of a moving source of sound). Kuah and Embrey (1968), after 12 weeks of gestation, were able to detect foetal circulatory impulses in all cases of live pregnancy, the earliest detection of foetal life being at nine weeks. In the few cases when the foetal heart sound was not heard, the pregnancy soon aborted or was later shown to be a missed abortion or hydatidiform mole. In this series, the Doptone was used in seven cases. All these cases had negative Doptone findings.

Radiographic Diagnosis

Straight X-ray abdominal examination was done in five cases as a preliminary to amniographic study. In all the cases, the uterine size varied between 22 to 24 weeks. No foetal skeleton was detected in any of the patients. Amniogram was performed by transabdominal intra-uterine instillation of radio-opaque dye using 20 ml. of water soluble Diatrizoate Sodium (Hypaque). The syringe was initially withdrawn to exclude the presence of liquor amnii. After injecting the solution, the patient was turned from side to side. All the five patients showed typical honeycomb appearance of the vesicles in the intra-uterine cavity. This method was reported by Terres and Peligrine (1966), with 11 out of 12 patients showing typical appearance of molar pregnancy. Sentus et al (1969), with a larger series of 34 patients, was able to obtain characteristic patterns in all but four cases of molar pregnancy. Recently, Aquero and Zigmelboin (1970) reported a high success rate using oil contrast media to phendylate (Myodil).

These workers have shown that there have been no harmful effects to the foetus or mother. This method is useful in developing countries, since it is easily performed and could always be incorporated with the radiographic investigation.

Human Chorionic Gonadotrophin (H.C.G.)

Table IV

Case No.	Gravindex in Dilution	Urine HCG I.U./L.
1	Not done	4.8 x 10 ⁴
2	1 : 32	5,000
3	1 : 256	40.9 x 10 ⁶
4	1 : 32	64 x 10 ⁴
5	1 : 256	26.2 x 10 ⁶
6	1 : 64	Not done
7	Negative	Not done
8	1 : 512	1.6 x 10 ⁴
9	1 : 256	40.9 x 10 ⁶
10	1 : 32	4 x 10 ⁶
11	1 : 4	Not done
12	1 : 16	Not done
13	Not done	5.1 x 10 ⁶
14	1 : 1	1.28 x 10 ⁶

The methods used for estimation of urinary HCG in this unit are by the immunologic haemagglutination-inhibition test of Wide and Gemzell (1960) and by the qualitative latex agglutination test (Gravindex). In the former, a purified HCG preparation (Physex) was used to coat formalinised, tanned sheep erythrocytes. Table IV showed that the urine value of HCG varied between 5,000 international units per litre to as high as 40,900,000 international units per litre. Tow (1966) commented that there is usually a high peak in urinary HCG between 50 and 100 days after the last menstrual period. In Singapore, the mean HCG level in normal pregnancy during this period is 20,000 to 40,000 international units per litre. In our experience, any value above 50,000 international units per litre was compatible with the presence of molar pregnancy. However, one has to concur with Tow that any attempt to establish definite diagnostic level, which would differentiate between normal and abnormal pregnancies, will inevitably lead to errors because such an inflexible approach does not take into account the normal pattern of chorionic gonadotrophin at various stages of normal pregnancies in different patients. However, Table IV showed that, of the ten cases in which this investigation was performed, the value of HCG obtained in nine cases was certainly much higher than that suggested by Tow for normal pregnancy.

The qualitative latex agglutination tests (Gravindex) are simple inexpensive tests which can be

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performed easily by inexperienced personnel and are therefore particularly suitable for use in the poorer developing countries in Southeast Asia and Africa. In our 14 patients, 1 in 32 dilution is compatible with molar pregnancy. However, in the 11 cases in which this was performed, three cases were below this level. The higher level was 1 in 512 dilution.

Conclusion

From this paper, it can be seen that the diagnosis of molar pregnancy in Malaysia can be a problem to the clinician, since there is no single specific sign, symptom and investigation which is

pathognomonic for this disease per se.

Summary

This paper presents 14 cases of molar pregnancy in the University Hospital, Kuala Lumpur, Malaysia. In spite of the high index of suspicion for this disease in this unit, five cases were misdiagnosed at the time of admission. The various symptoms and signs and ancillary aids available at this hospital are discussed.

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