SURVEY OF 93 CASES OF VESICULAR MOLE TREATED AT THE NOWROSJEE WADIA MATERNITY HOSPITAL FROM 1956 THROUGH 1960

by

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Vesicular mole is a condition of the developing embryo which has been recognised from the earliest of times. References to this condition are found in the writings of Hippocrates, Aetius and others.

Velpeau, Smellie, Boivin, Dela Motte, Marchand and others have made valuable contributions towards the understanding of the pathology of this condition. The greater incidence of this condition amongst the eastern races prompted us to undertake this survey, and discuss our methods of management of this condition.

Material and Methods

The data analysed are based on information obtained from the hospital case records, interviews with the patients, whenever possible, and through correspondence.

Incidence

The incidence of vesicular mole in our hospital was 93 cases in 46,973 confinements, which compares favourably with figures quoted by other eastern workers.

Gordon King	1 : 530
H. Acosta-Sison	1 : 126
Sircar (Calcutta)	1 : 418
Mudaliar (Madras)	1 : 583
Gupta	1 : 558
Authors	1 : 505

Age

The youngest patient in the present study was aged 17 years and the oldest was aged 39 years. A detailed analysis according to 5 year age groups is as under:

15-20 years	25	58 i.e. 62.3%
21-25 years	33	
26-30 years	20	35 i.e. 37.7%
31-35 years	10	
36 and above	5	
Total	93	

The bulk of our patients were under the age of 25 years, but this corresponds to the incidence of our cases in the antenatal department.

Parity

The distribution of our cases according to parity was as under:

I — 26	....	VI — 8
II — 25	....	VII — 2
III — 12	....	VIII — 2
IV — 7	....	IX — 3
V — 7	....	X — 1

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The ratio of primiparae to multiparae was 26 : 67, i.e. 1 : 2.6. The ratio of primiparae to multiparae, at this hospital, reckoned for the last 20,000 confinements, worked out to be 1 : 3.5, showing a relatively higher incidence of vesicular mole in primiparae.

Symptomatology

The symptomatology associated with this condition varies, but bleeding, following a variable period of amenorrhoea, tenderness of the abdomen, weakness, giddiness, swollen feet, hyperemesis gravidarum and inability to appreciate foetal movements, are amongst some of the important symptoms complained of by patients.

In the present study the symptoms which brought our patients to us were as follows:

Bleeding per vaginam	88 cases
Tenderness of abdomen ..	11 cases
Weakness and oedema of feet ..	8 cases
Excessive vomiting in early pregnancy	7 cases
Inability to appreciate foetal movements	8 cases

The period of amenorrhoea preceding the bleeding phase was variable.

8-12 weeks	23 cases
12-16 weeks	36 cases
16-20 weeks	18 cases
20-24 weeks	9 cases
24-28 weeks	4 cases
No definite h/o amenorrhoea ..	3 cases

The majority of our patients presented with a history of 3-4 months' amenorrhoea prior to the onset of bleeding.

In the present study of the total number of 93 cases, only sixteen patients had attended the antenatal department; they were suspected clinically to be having vesicular mole, and hence admitted for investigation and treatment. Four of these attended the hospital for severe vomiting in early pregnancy, 5 patients had been unable to appreciate foetal movements; these were all multiparae, they had attended the antenatal clinics for confirmation of pregnancy, and were admitted for investigation because a molar pregnancy was suspected. Three patients had attended the antenatal clinic for colicky abdominal pain in the hypogastrium, the uterus was larger than the period of amenorrhoea in all of them; clinically vesicular mole was suspected and proved so on investigation.

Two patients had come for extreme weakness, both were severely anaemic; one patient had complained of 4 months' amenorrhoea, the uterus appeared twenty-four weeks' size, no foetal parts could be defined, her Hb% was 4 gms.%. The other patient complained of seven months' amenorrhoea, the uterus appeared 36 weeks' size, no foetal parts were felt, foetal heart sounds were not heard, the patient was severely anaemic, Hb% 6.4 gms., BP 150/100 mm. Hg. alb. trace, oedema ++. She was admitted, investigated and a diagnosis of vesicular mole established. A 15 units pitocin drip in 1 pint of glucose was given, 4 hours later the patient started evacuating the mole and many blood clots; the evacuation was completed digitally under open ether anaesthesia, 1,500 c.c. of blood was given.

Four patients had attended the antenatal clinic for slight spotting per vaginam following 2-5 months' ame-

norrhoea. They were admitted as cases of threatened abortion, two were later proved to be having vesicular mole on further investigations, the other two cases aborted the mole, and the diagnosis was subsequently established.

The number of cases thus diagnosed antenatally is only 16 out of 93 or 17%. In most foreign countries patients attend antenatal clinics in early pregnancy, often the first visit being in the second month, for confirmation of pregnancy. Cases of early molar pregnancy are often suspected clinically at this stage and admitted for investigation and treatment. However, in India, most women register for confinement in the seventh month of pregnancy, and only attend the hospital earlier when they are unwell and need hospitalisation, hence many molar pregnancies, which should have come to light in the early antenatal period, remain undetected until a much later stage.

Bleeding

Bleeding may be fresh and bright red or it may be altered dark brown to blackish discharge.

Eighty-eight of our patients complained of bleeding; of these, 48 patients complained of fresh bleeding and 40 patients gave history of a discharge of altered blood.

The duration of bleeding varied from 1 day to 2½ months, the bleeding having lasted for less than a week in sixty-eight cases, between a week to 1 month in fourteen cases and for more than a month in 11 cases. The bleeding may occasionally be so profuse that the patient may get exsanguinated. Six of our patients were admitted to the hospital in a collapsed state.

Tenderness in abdomen was complained of by 11 cases. In 6 of these patients the uterine height was noticed to increase under observation. Intra-uterine bleeding was confirmed.

Vomiting

Seven of our patients complained of excessive vomiting for more than a month. Giddiness, anorexia and weakness were amongst the other features in the symptomatology of this disease; these were usually found in patients who had become very anaemic.

Physical Examination

The physical sign of a uterus larger than the corresponding period of amenorrhoea is indeed valuable in the diagnosis of vesicular mole.

The size of the uterus in relation to the period of amenorrhoea in the present series was as under:

(i) Uterus larger than gestation period in 57 cases (61.3%),
(ii) Uterus corresponding to the gestation period in 30 cases (32.3%),
(iii) Uterus smaller than gestation period in 6 cases (6.5%).

In 22 patients the uterus was more than 24 weeks in size. In all these patients an attempt was made to define foetal parts and hear the foetal heart sounds, but these signs could not be elicited.

In the 62 cases where the uterus was between 16-20 weeks in size, external and internal ballotment was tried without success.

The uterus was not palpable per abdomen in 9 cases.

Anaemia

Anaemia is a common accompaniment of vesicular mole; 71 of our cases had a haemoglobin percentage of less than 10 gms.%. Nineteen patients were severely anaemic, having a haemoglobin percentage of less than 5 gms. % (35%).

Detailed analysis of these severely anaemic cases revealed that only 4 had bleeding per vaginam, lasting for over a week. In only 14 cases was the uterus very much larger than the period of amenorrhoea, suggesting a rapidly growing mole. Probably the growing mole utilises certain factors necessary for proper haemopoiesis and thereby contributes to anaemia.

Toxaemia

Twenty-one of our patients had evidence of toxaemia. Albuminuria was observed in 12 of these cases, it was severe in 3 cases only, suggesting that the toxaemia accompanying a molar pregnancy has more of a hypertensive element rather than impaired renal function.

Diagnosis

Vesicular mole was suspected in 80 cases. In 9 of our cases the diagnosis on admission was threatened abortion and in 4 cases it was inevitable abortion. In all these cases the uterus was less than 12 weeks' size.

Investigations

Of the 93 cases analysed, the presence of vesicular mole was suspected in 80 cases. Forty-four cases were further investigated by X-rays, urine A-Z tests and per-abdominal tapping of the uterus. A plain X-ray of the abdomen, A-P view, was taken in 30 cases. In none of these was the foetus visualised. In one of these cases, the placenta had undergone partial molar degeneration and a foetus of about 16 weeks' size was present; the X-ray, however, had failed to reveal it.

The qualitative and quantitative A-Z test was carried out in 40 cases. In 39 of these the qualitative A-Z test and the quantitative A-Z test in 1 : 100 dilution were positive. In one case the A-Z test was negative in spite of the presence of vesicular mole.

Per abdominal tapping of the uterus and aspiration of blood is highly suggestive of molar pregnancy. It was performed in 9 of the cases with successful results. However in another case where a molar pregnancy was suspected, an X-ray showed no foetal shadow and per abdominal tapping of the uterus revealed blood; on the basis of these 2 tests the patient was subjected to a hysterotomy. At operation a vascular friable fibromyoma was detected. Similarly, there is possibility that the exploring needle may enter the placental site, and the aspirations may reveal blood, hence the limitations to this test.

Treatment

The management of vesicular mole is essentially conservative at this hospital.

1.	Spontaneous evacuation	7
2.	I.V. Pitocin drip and digital evacuation	46
3.	Laminaria tent followed by I.V. Pitocin drip + digital evacuation, and gentle curettage	28

4. Dilatation and curettage 6
5. Hysterotomy 5
6. Hysterectomy .. .. .. nil
7. Patient expired before any treatment could be undertaken .. 1

Seven of the cases aborted spontaneously; as they were not bleeding no further interference was undertaken. Two of these cases had bouts of bleeding in the puerperium, necessitating a curettage.

The cervical os was open in 46 cases, a pitocin drip was started, the patient aborted the mole, the process was completed digitally or by light curettage.

Inevitable abortion was diagnosed in 6 cases where the uteri were less than 12 weeks' size, a simple dilatation and curettage was undertaken in these cases and the vesicular mole was diagnosed at operation.

A detailed analysis of cases on whom a hysterotomy was performed revealed that in all the cases the uterus was 20 weeks' size or larger. They all had severe bleeding with the internal os closed. These patients were very anaemic and did not respond to intravenous pitocin, a hysterotomy had, therefore, become incumbent on the surgeon.

It may be stressed here that primiparity is not considered a factor deciding in favour of a hysterotomy. All patients are treated conservatively; most of them respond to intravenous pitocin, even the primiparous patients respond to intravenous pitocin remarkably well. In the present series no hysterotomy was performed on primiparae, as is shown in the table below.

Cases Needing Hysterotomy

No.	Age	Parity	Complaints on admission	Haemoglobin	Abdominal palpation	Vaginal examination	Remarks
1.	19	II	3 months' amen. with bleeding p.v. for 3 days	42%	Ut. 24 wks. No foetal parts felt; foetal heart sounds absent; uterus tense + tender	Os closed bleeding ++	Uterus increased in size under observation. No response to pitocin.
2.	30	III	6 months' amen. with bleeding	42%	Ut. 20 wks. No ext. ballotment; uterus tense and tender	Os closed bleeding ++	Uterine height increased rapidly under observation.
3.	30	VI	3 months' amen. with bleeding p.v. for over a month	30%	Uterus 28 wks. No foetal parts. No foetal heart sounds heard	Os closed bleeding ++	Patient toxaemic.
4.	25	III	4 months' amen. with bleeding p.v. for 8 days	28%	Ut. 28 wks. Tense and tender. No ext. ballotment	Os closed bleeding ++	No response to i.v. pitocin.
5.	38	V	2½ months' amen. with bleeding p.v. for 10 days	30%	Ut. 24 wks. No foetal parts felt. No foetal heart sounds heard	Os closed	No response to i.v. pitocin.

Amen. = Amenorrhoea.

Hysterectomy was not performed on any cases in the present study. It was planned on a 35 year old multipara (X para). This patient was anaemic (30%) a blood transfusion was given, the patient got a rigor. She then started aborting the vesicular mole, and bled very profusely, collapsed and expired in spite of all resuscitative measures.

In the present study there were 7 cases, with parity VII and above. In none of these cases was a hysterectomy undertaken, all, except one case, responded well to conservative treatment.

Complications and Sequelae

Bleeding P.V.	88 cases
Fever and sepsis	9 cases
Toxaemia	20 cases
Recurrent bleeding	2 cases
Chronic carcinoma	1 case

Follow-up

— 16 cases followed up from 6 months to 5 years were found to be A-Z negative.
— 2 cases had had normal full-term deliveries after the molar pregnancies.
— 4 cases residing out of the city sent letters stating that they were menstruating regularly and were well.
— In the rest of the cases no follow-up was available.

Maternal Mortality

In the present series, there were five maternal deaths, giving a mortality incidence of 5.4%.

The first patient was a 35 year old tenth para; patient was admitted with a history of 3 months' amenorrhoea with vaginal bleeding; the uterus was of twenty week's size. The patient was severely anaemic, her haemoglobin was 5 gms.%; she was treated with blood transfusion, the patient started aborting the mole spontaneously and soon collapsed, in spite of resuscitative treatment, and expired.

Two other patients, aged 22 years and 27 years, were both admitted as emergency cases in a collapsed state, with a history of three months' amenorrhoea and vaginal bleeding. Both the patients were severely anaemic, the haemoglobin levels being 3.0 gms. and 3.5 gms. per cent respectively; the size of the uterus was 16 weeks and 20 weeks respectively. Both died within four and seven hours of admission, in spite of resuscitative therapy.

The fourth patient was a 20 years old V para, admitted with history of 5 months' amenorrhoea and vaginal bleeding of 1 month's duration. The uterus was 22 weeks size. The patient was anaemic. The haemoglobin was 4,5 gms. per cent. She had associated toxaemia; she was treated with blood transfusions and later a pitocin induction carried out, the patient collapsed after evacuation of the mole and expired.

The last patient was a 28 years old VI para, patient admitted as an emergency case with history of 6 months' amenorrhoea and vaginal bleeding. The patient was anaemic, having a haemoglobin of 7.5 gms. per cent. Her blood pressure was 130/90 mm. of Hg. Urine was positive for albumin. The patient was also deeply jaundiced, her icterus index was

60 units. Serum bilirubin level was 8 mgs.%, Van Den Bergh — Indirect test positive. The patient was given a blood transfusion; 3 days later the patient started evacuating the mole, and the bleeding was profuse; as the mole was not completely aborted, the evacuation was completed digitally under general anaesthesia; the patient recovered from the anaesthesia completely, but later collapsed and expired.

It is interesting to note that in all the five patients who died, the haemoglobin was very low, between 20% to 50%. Two of these had come in a collapsed state and were in a very low condition at the time of admission. One patient had severe jaundice in addition. The other two patients who expired died primarily because they were very anaemic, their haemoglobin levels being 4.5 gms.% and 5 gms.% respectively. These patients could not stand the stress of additional blood loss, and died in spite of blood replacement.

Contrary to expectations, we had no deaths from sepsis in the present study.

A tabular statement on these five cases is given below. (See next page).

Summary and Conclusions

A review of 93 cases of vesicular mole at Nowrosjee Wadia Maternity Hospital is presented.

(i) The incidence of vesicular mole was 1 : 505 confinements, this figure compares favourably with the incidence of other Indian workers.

(ii) Vaginal bleeding was the commonest complaint, weakness, vomiting, abdominal pain and inability to appreciate foetal movements were other complaints of diminishing frequency.

(iii) Anaemia was the commonest complicating feature, in the series. The haemoglobin level was less than 10.0 gms.% in 71 cases and below 5.0 gms.% in 19 cases.

(iv) Toxaemia was present in 21 cases; it was severe only in 3 cases.

(v) All patients should be thoroughly investigated, with a plain X-ray abdomen, qualitative and quantitative A-Z tests and abdominal tapping, in order to minimise possible errors in diagnosis.

(vi) Conservation should be the key-note in the treatment of vesicular mole, most patients evacuate the mole with intravenous pitocin; a curettage of the uterus after spontaneous evacuation is recommended. Blood transfusion should always be freely available.

(vii) Hysterotomy was necessary in only 5 cases in the present series; in all these cases the internal os failed to dilate under pitocin, and the patient continued to bleed profusely.

(viii) There were five maternal deaths in the present series, giving an incidence of mortality of 5.4%. Anaemia was a major contributory factor.

References

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Maternal Mortality

No.	Age	Para	Symptoms on admissions	Examination findings	Anæmia	Toxaemia	Treatment	Remarks
1.	35	X	3 months' Amen. with bleeding	Uterus 20 weeks' size Os closed	38% 5 gms.%	——	Blood Haematinies-Pitocin drip-curettage	Hysterectomy was planned but patient expired before treatment could be undertaken.
2.	27	V	3 months' Amen. with bleeding. Patient admitted in collapsed state	Uterus 20 weeks' size	22% 3 gms.%	——	Pitocin drip-Mole expelled. Bleeding PV ++ Patient collapsed	Anaemia severe.
3.	22	VI	3 months' Amen. with bleeding P.V. for one week. Patient admitted in a collapsed state	Uterus 20 weeks. No foetal parts. No foetal heart sounds. Cervical os open. Bleeding severe	28% 3.5 gms.%	——	Shock treated, i.v. pitocin, digital evacuation intra-uterine douche	Patient admitted in collapsed condition.
4.	20	V	5 months' Amen. with bleeding P.V. for month no foetal movements felt	Uterus 20 weeks' size. No Ext. ballotment. No foetal parts felt. Os closed. Bleeding profuse.	32% 4.5 gms.%	B.P. 150/90 Hg. Alb. ++ Oedema +	Blood-Laminaria tents i.v. pitocin	Patient did not come out of shock in spite of resuscitative measures.
5.	28	VI	6 months' Amen. with bleeding	Uterus 26 weeks, tense and tender. Os closed. No foetal parts felt	52% 7.5 gms.%	130/90 Hg. Alb. loaded Oedema +	Blood. Digital evacuation under General Anaesthesia	Patient came out of anaesthesia, later collapsed and expired. Patient had jaundice.