

HYDATIDIFORM MOLE

(Review of 51 Cases)

by

SUNIL D. CHAUBAL, M.D., D.G.O., D.F.P.

D. V. SHASTRI, M.B.B.S.

SHIRISH N. DAFTARY, M.D., D.G.O.

J. M. DeSA SOUZA, M.D., F.R.C.S.E.

Hydatidiform mole and choriocarcinoma have remained as medical enigmas in spite of the varied advances in laboratory investigational methods and the wealth of clinical material in the Orient. Trophoblastic disease has evinced so much interest that it formed a subject for the 3rd Asiatic Congress held at Manila in January 1965. The information gained from the various papers presented at this Conference under the able leadership of the grand old lady of the Philippines, Madame Acosta Sison, revealed new facets of this disease.

It is of great interest to note that the latest reported incidences of occurrence of this disease point out that hydatidiform mole is far more prevalent than it was believed to be; more definite diagnostic criteria have established this fact in all far-eastern countries.

Incidence

The reported incidence of vesicular

From: Nowrosjee Wadia Maternity Hospital, Parel, Bombay 12.

Paper read at the 13th All-India Obstetric & Gynaecological Congress held at Patna in January 1966.

TABLE I

1.	Das	Calcutta	1 : 337
2.	Baruah and Gupta	Assam	1 : 558
3.	Rao	Madras	1 : 361
4.	P. K. Devi ..	Nagpur	1 : 280
5.	Hingorani et al ..	Delhi	1 : 458
6.	Daftary et al ..	Bombay	1 : 505
7.	Chaubal et al ..	Bombay	1 : 633
<hr/>			
8.	Gordon King ..	Hong Kong	1 : 530
9.	Hasegawa ..	Japan	1 : 253
10.	Acosta Sison ..	Philippines	1 : 126
11.	Hong	S. Viet Nam	1 : 101
<hr/>			
12.	Coppleson ..	Sydney	1 : 820
13.	Fernandez & Marques	Brazil	1 : 1071
14.	Alan Brews ..	Britain	1 : 1500
15.	Hertig & Sheldon	U.S.A.	1 : 2000
16.	Novak & Woodruff	U.S.A.	1 : 2500

mole varies widely as can be seen from Table I. The incidence in the east is much higher as compared to the western countries. The study of vesicular mole from India reveals that the average incidence of the disease is 1:463 pregnancies. The figures from all parts of India seem to be in agreement except for the high incidence quoted by Devi from Nagpur.

Reports from other eastern countries also show a high incidence. Recent reviews presented at the Manila Conference confirm this, as can be seen from the high incidences of 1:126, quoted by Acosta Sison, and 1:101, by Hong. The figures from western countries show a much lower incidence of the disease. Of interest are the figures of Novak and Woodruff, from Johns Hopkins Hospital, of 1:2500, and of Hertig and Sheldon from the Carnegie Institute of Embryology, Washington, giving a figure of 1:2000.

At these well known American centres all abortion material is subjected to thorough microscopic scrutiny. Hence figures from these centres tend to approximate to the actual occurrence of the disease.

The great difference in the incidence of the disease in the west and the east is probably a result of differing nutritional standards. H. Acosta Sison is of the opinion that a lack of first class proteins and vitamins in the diets of easterners is probably the responsible factor.

Levine has demonstrated an enzyme deficiency in developing embryos undergoing transformation into vesicular mole. Stolte *et al.* in 1960 demonstrated abnormal chromosome numbers of 38, 39 and 47 in the cells of chorionic villi of 3 hydatidiform moles, indicating a genetic cause.

Incidence of vesicular mole in relation to incidence of abortion

The relationship between the occurrence of abortions and vesicular mole shows that, whereas about 1:85 abortions show molar degeneration in

western countries, the incidence of molar degeneration is 1:50 in India. This once again emphasises the need for submitting all abortion material to thorough microscopic examination.

Age and parity

The average age and parity distribution in the present series is compared with similar figures quoted by different authors in Table II.

TABLE II
Age and Parity Distribution

Authors	Per cent of patients under 30 years	Average parity
1. Daftary <i>et al</i> ..	83.0	2.8
2. Chaubal <i>et al</i> ..	96.0	2.8
3. Devi ..	67.0	3.4
4. Hasegawa ..	71.4	2.9
5. Novak <i>et al</i> ..	75.8	3.1
6. Gordon King ..	78.2	3.0

The figures reveal that a high proportion (90%) of women with vesicular mole are below 30 years and around third parity. Repeated inadequately spaced pregnancies in young women on a poor nutritional diet may be a possible predisposing factor. Studies on a wider scale alone can give answers to this problem. These would afford valuable data on the public health and preventive aspects of this disease.

Symptomatology

Molar pregnancy may present at any stage of pregnancy in the first two trimesters, Vaginal bleeding is the commonest symptom. The bleeding may be slight or profuse, fresh or altered blood. Continuous amenorrhoea, inability to appreciate foetal

movements, excessive vomiting and symptoms due to complicating anaemia and toxæmia are other reasons why a patient seeks medical advice.

Eighty-two per cent of the patients had vaginal bleeding. Four of them were exsanguinated and admitted in a state of shock. Hyperemesis gravidarum often complicates a molar pregnancy and was present in 8 per cent of cases.

Analysis of physical signs observed shows that 4 patients were admitted in a state of shock, 7 of the 51 patients were severely anaemic with a haemoglobin of less than 6.0 gms. % and 9 patients had accompanying toxæmia of pregnancy. Toxæmia is rarely seen in the first half of pregnancy unless complicating a vesicular mole.

Obstetric examination revealed disparity between the size of the uterus and the period of amenorrhoea in 88% of the cases shown in Table III.

Of the 12 patients where the uterine size was in keeping with the amenorrhoea, a diagnostic error was made in 5 cases. Four of these were admitted with a diagnosis of threatened abortion and one as a case of inevitable abortion. In the other 7 cases in this group the inability to feel foetal parts and elicit ballotment or the appearance of vesicles on the examining finger led to a correct diagnosis.

In 8 patients the uterus was smaller than the period of amenorrhoea. In 7 of these cases the admission diagnosis was missed abortion. In one case the uterus was 16 weeks' size whereas the preceding amenorrhoea was of 24 weeks. However, as ballotment was not elicited, vesicular mole was suspected and proved on further investigation. Alan Brews (1946) states that partial or complete necrosis of the mole with its continued retention in utero accounts for this

TABLE III
Size of the uterus

Sr. No.	Size of uterus	King (1956)	Coppleson (1958)	Present series (1964)		Average
				Nos.	%	
1.	More than the period of amenorrhoea	68%	57%	31	62%	65%
2.	Equal to the period of amenorrhoea	16%	27%	12	22%	20%
3.	Less than the period of amenorrhoea	16%	16%	8	16%	15%

In the present series the uterus was larger than the expected size in 62% of the cases. The other physical signs of absence of ballotment or inability to feel the foetal parts had enabled the obstetrician to arrive at a correct diagnosis in all these cases.

smaller size of the uterus.

Ballotment was absent in 20 patients in the second trimester of pregnancy. This was a valuable clinical sign suggesting molar pregnancy.

In 9 cases passage of vesicles was a further confirmatory sign.



Fig. 1
Photograph showing long curved abdominal retractor and Bebbcock Forceps.

Naegele Pelvis—Punde et al. pp. 522-524

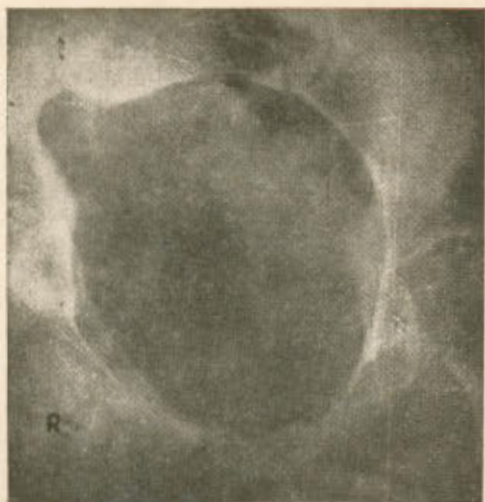


Fig. 1
The inlet view showing absence of the right ala of the sacrum.

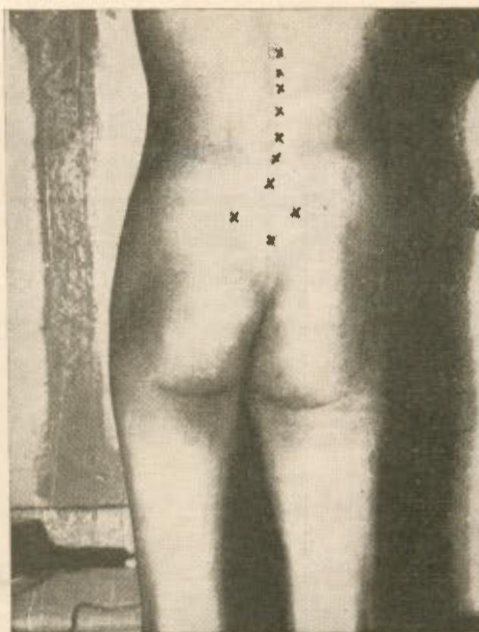


Fig. 2
Shows the scoliosis of the lumbar vertebrae with convexity to the right side, and distortion of rhomboid of Michaelis.



Fig. 1
Multiple fibroids with characteristic cork-screw
intramural vessels.

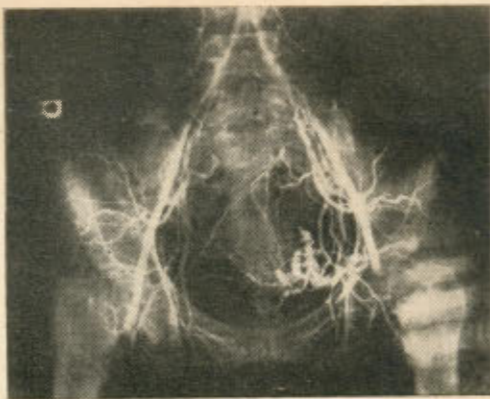


Fig. 2
Large fundal fibroid with right ovarian
malignant tumour.

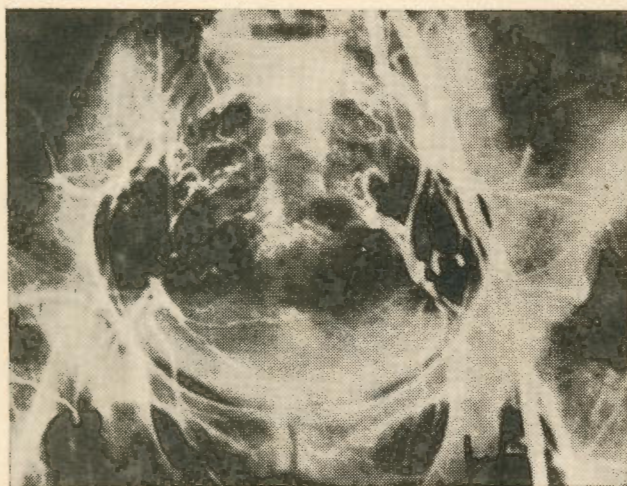


Fig. 3
Left uterine fibroid.

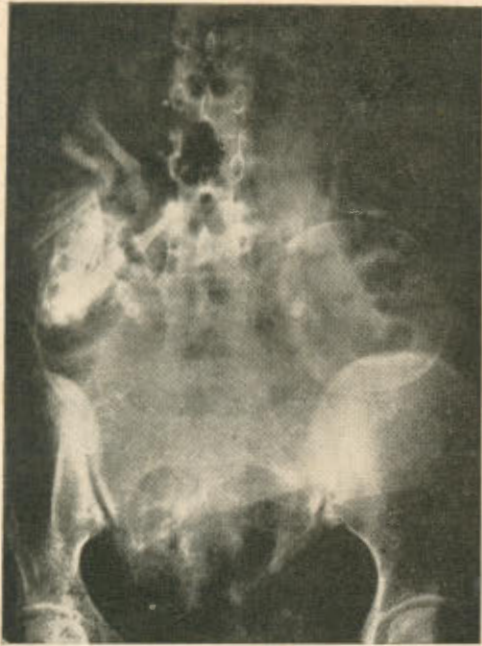


Fig. 1
X-ray picture on admission.

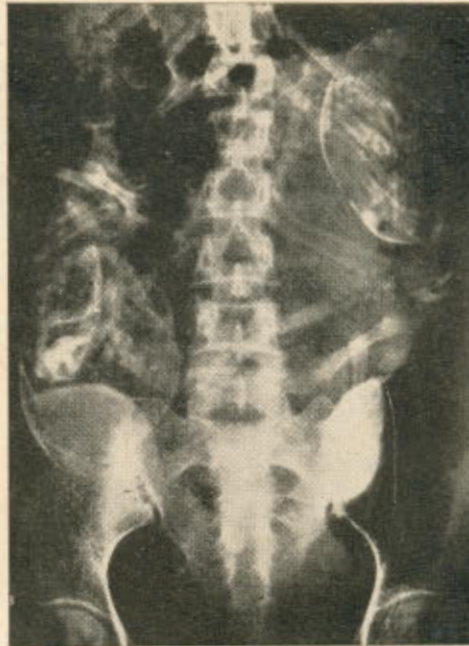


Fig. 2
X-ray picture taken just before operation.



Fig. 3
On left is the abdominal foetus and on the right
the uterine foetus.



Fig. 1
The specimen showing a few vesicles.

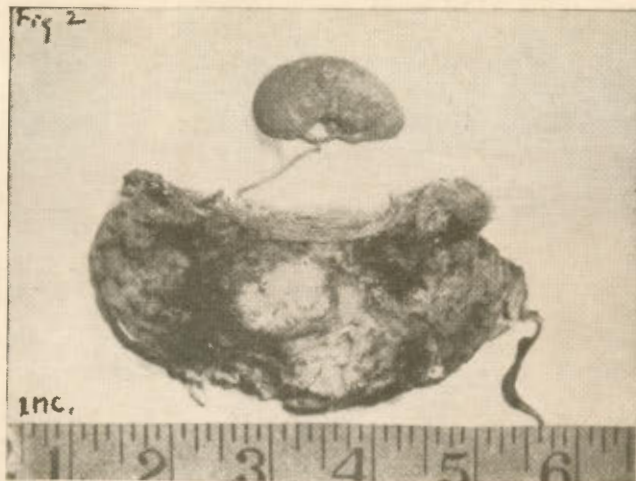


Fig. 2
The specimen on being cut open showed a small foetus attached to the rest by umbilical cord.



Fig. 3
Skiagram of the foetus showing various centres of ossification as referred to in the text.

TABLE IV

Sr. No.	Procedure	No. of cases
1.	Spontaneous evacuation	8
2.	Dilatation and curettage	8
3.	Pitocin induction with digital evacuation	3
4.	Pitocin induction followed by blunt curettage	27
5.	Laminaria tents + pitocin + blunt curettage	4
6.	Hysterotomy	1
7.	Hysterectomy	Nil

Complications

Complications observed were fever, thrombophlebitis and anaemia. Secondary haemorrhage often complicated these cases. Six of them had a repeat dilatation and curettage but no malignancy was detected.

Follow up Aschheim-Zondek test was negative in 15 days to one month in 35 patients who attended for follow up.

One case developed choriocarcinoma 7 months after evacuation of a vesicular mole. This patient did not attend our hospital for follow up examination.

Discussion

From the above statistical analysis it is very clearly evident that vesicular mole and choriocarcinoma, though rare in western countries still have a higher incidence in Asia. The vagaries in the diagnosis of these diseases are yet another pitfall in their early detection and management. Yet considering the grave danger of development of choriocarcinoma immediate treatment and prolonged follow up of every patient is essential.

Hertz *et al.* have advocated prophylactic chemotherapy in every case

of vesicular mole. Patients are treated after evacuation with tablets of methotrexate 5 mg. three times a day for five days. Though this treatment is still under trial, any possible therapy must be tried in these cases to prevent the complications of choriocarcinoma.

Acknowledgement

We thank Dr. K. M. Masani, M.D. (Lond.), F.R.C.S. (Eng.), Honorary Principal Medical Officer, N. W. Maternity Hospital, Bombay 12, for permitting us to report the hospital data.

References

1. Brews, Alan: J. Obst. & Gynec. Brit. Emp. 53: 813, 1946.
2. Coppleson: Tumours of the Female Sex Organs, 1956.
3. Daftary, S. N.: J. Obst. & Gynec. India. 13: 1, 1963.
4. Das, P. J. Obst. & Gynec. Brit. Emp. 45: 265, 1938.
5. Devi, P. K.: Proceedings of 3rd Asiatic Congress, 1965.
6. Gordon, King: Proc. Roy. Soc. Med. 49: 381, 1956.
7. Hasegawa: Proceedings of the 3rd Asiatic Congress, Manila, 1965.
8. Hertig and Mansell: Tumours of the Female Sex organs, Part I, 1956.
9. Hingorani: Ibid.
10. Hong: Proceedings of 3rd Asiatic Congress, Manila, 1965.
11. Novak and Woodruff: Am. J. Obst. & Gynec. 68: 876, 1954.
12. Sequeira, E. J.: J. Obst. & Gynec. India. 10: 378, 1959.
13. Sison, Acosta H.: Proceedings of 3rd Asiatic Congress, Manila, 1965.
14. Uchida: Proceedings of 3rd Asiatic Congress, Manila, 1965.