# CLINICO-PATHOLOGICAL STUDY OF TROPHOBLASTIC DISEASE
## (Report of Fifty nine cases)

by

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*Introduction*

Under the broad heading of trophoblastic disease there are three generally accepted catagories—hydatidiform mole, invasive mole and choriocarcinoma. Though each of these diseases are considered as a separate entity, sometimes they may represent stages of a single disease. In fact invasive mole always develops from hydatidiform mole but choriocarcinoma may arise as a primary leison devoid of molar changes. Hertz, *et al* (1964) strongly urged that these three should be grouped under the general designation of Trophoblastic disease.

Fifty-nine cases of trophoblastic disease have been collected from Eden Hospital, Medical College Hospitals, Calcutta from January 1976 to July 1977. During this period 20791 pregnant mothers were admitted. So the incidence of trophoblastic disease in this series was 1 in 352 pregnancies. Out of these 59 cases in 42 cases it was benign hydatidiform mole, in 13 it was invasive mole and in 4 cases choriocarcinoma.

Incidence of molar pregnancy as reported by Novak and Woodruff (1974) as 1 in 2000 to 2800 pregnancies and in Taiwan 1 in 82 pregnancies. From statistics of Eden Hospital the incidence has been found as 1 in 330 pregnancy cases and 1 in 85 gynaecological cases. Ringertz (1970) has reported that 3.5% of mole progressed to choriocarcinoma and 7.6% turned to invasive mole.

Recurrence of mole is uncommon but is seen in about 2% of cases. In the present series in 2 cases it recurred, recurrence rate comes to about 3.5% of cases.

Mole has been reported in a 12 year old girl (Bobrow and Friedman (1957) and in a 53 years old woman. Predominantly the young adult women are afflicated (Novak and Woodruff 1974). In the present series in 84.5% cases the age was 30 years or less and among these in 22% cases it was malignant, whereas in 15.5% cases the age was 31 years or more and in 68% cases the disease was malignant. It has also been noted that out of 4 choriocarcinoma 3 occurred below 30 years of age.

Though it is usually taken that the disease is common in multiparous patients, in the present series 36 (61%) cases it occurred during first or second pregnancies. (Table I). The higher incidence of trophoblastic disease in Eastern part of the World has been blamed to be due to poor socio-economic status of the patients. In the present series 25.4% of cases belonged to high middle class group while among average hospital

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TABLE I
*Showing Incidence of Different Types*

| | No. | | Incidence |
|---|---|---|---|
| H. Mole | 55 | < 42 Benign<br>13 Invasive mole | 1 in 378 preg. cases. |
| Invasive mole | 13 | out of 55 cases of H. mole | 24% of molar pregnancy cases. |
| Choriocarcinoma | 4 | < 2 following H. mole<br>2 following normal preg. | 3.5% of H. mole.<br>1 in 3013 gynaecological patients. |

TABLE I
*Showing Parity*

| $P^o$-$P_1$ | $P_2$-$P_3$ | $P_4$ or more | Total |
|---|---|---|---|
| 36(61%) | 13(22%) | (10(17%) | 59 |

patients only 10% belonged to this group.

Bleeding per vaginum was the main symptom in 51 (86.4%) cases in this series, but in Goldstein and Reid (1967) series bleeding was present in 100% cases. Other symptomes are given in Table IV.

TABLE II
*Symptoms*

| Symptoms | No. of cases | Percentage |
|---|---|---|
| Bleeding P.V. | 51 | 86.4 |
| Amenorrhoea | 48 | 81.3 |
| Pain abdomen | 25 | 42.3 |
| Hamoptysis | 3 | 5 |
| Cough | 2 | 3.4 |
| Pain chest | 4 | 6.8 |
| Dyspnoea | 3 | 5 |
| Vomiting | 2 | 3.4 |
| Lump abdomen | 1 | 1.8 |
| Toxaemia | 2 | 3.4 |
| Labour pain | 2 | 3.4 |

Height of the uterus which is an important diagnostic aid in molar pregnancy was more than the duration of gestation in 29 cases (58%), corresponded to the duration in 16 cases (32%) and in 5 (10%) cases it was less than the duration of gestation.

Most of our patients with trophoblastic disease suffered from moderate degree of anaemia. The Hb. level was below 7 gm per cent in 10, 7 and 10.5 in 48 and in 1 case it was above 10.5.

Blood group of the patients could be detected only in 38 cases. Table III shows the different blood groups of these patients and also the average Blood groups among the hospital patients attending the antenatal clinic. Maximum number of trophoblastic disease occurred in Group 'A' while among the antenatal patients maximum number belonged to Group B and although a large number of antenatal patients belonged to Group O very few trophoblastic disease occurred

TABLE III
*Showing the Blood Group*

| | Group 'A' | Group 'B' | Group 'O' | Group 'AB |
|---|---|---|---|---|
| Among Tro. Disease cases | 44.7% (17) | 26.9% (11) | 18.3% (7) | 8.1% (3) |
| Among Antenatal patients | 31% | 37.5% | 25.5% | 6% |

in Group O in this series. The incidence of Rh—ve mothers among our antenatal patients was 16% to 18%, but in the above 38 cases all patients were Rh+ve except 1.

Deficiency of protein has been blamed to precipitate molar degeneration. Estimation of serum protein was done in 29 cases of trophoblastic disease and in these there was no gross deficiency of protein.

Naotaka (1973) reported that some patients with mole have an HCG titre within normal pregnancy limits. In the present series in 2 cases of benign mole urine was negative. A definite tendency in H.C.G. secretion pattern was not observed in patients with choriocarcinoma. In 1 case the limit was witnin normal pregnancy limit. In 12 cases urine test was not possible.

In 2 choriocarcinoma cases diagnosis was made from histopathological report of endometrial curettage. In 7 cases of invasive mole and all cases of choriocarcinoma histopathological picture of uterus showed the typical pathology. In 1 case of mole there were metastases of syncytial cells in vulva and vagina. In the present series only 7 cases of invasive mole have been treated with methotrexate alone. Six other cases of invasive mole and 4 cases of choriocarcinoma were all treated with hysterectomy combined with methotrexate.

Severe toxic effects of methotrexate were shown in 3 cases. There was 1 mortality after methotrexate and 2 other patients developed stomatitis, gingivitis and severe gastro-enteritis. In 1 case the patient developed severe leucopenia and in another there was patchy alopecia. One case of invasive mole who was treated with methotrexate developed choriocarcinoma after 8 months of complete remission.

Hysterotomy as a method of treatment of molar pregnancy was adopted in 1 case only. In 3 other cases hysterotomy was performed for medical termination of pregnancy when molar pregnancy was accidentally diagnosed.

By suction evacuation uterus which was enlarged upto 32 weeks of size was evacuated along with blood transfusion and syntocinon drip (Table IV).

TABLE IV

*Treatment*

| Treatment | | No. | % |
|---|---|---|---|
| S/E | | 16 | 27 |
| C/E | | 27 | 45.7 |
| Hysterotomy | | 4 | 6.7 |
| Hysterectomy | | 12 | 20 |
| Methotrexate | | 17 | 28.5 |
| Invasive mole | 13 | | |
| Choriocarcinoma | 4 | | |
| Syntocimon drip | | 47 | 80 |
| Blood transfusion | | 39 | 66 |
| (350 cc — 6650 cc) | | | |

Out of 59 cases 2 died. One after methotrexate and the other few hours after admission due to excessive haemorrhage.

Inspite of our advice to avoid pregnancy, 14 cases conceived within one year after evacuation of mole.

*Summary*

Fifty-nine cases of trophoblastic disease have been studied. The incidence of molar pregnancy in the present series has been very high. The incidence of malignancy in molar pregnancy also has been very high. Malignancy is common in very young patients under 30 years of age. Four cases were accidentally diagnosed during hysterectomy for

M.T.P. Poor general condition and low Hb. level of the patients made it difficult to treat the patients with chemotherapy. Hence in young patients hysterectomy ad to be performed. How far poor socio-economic state and defeciency of protein are whether responsible for the high incidence of trophoblastic disease in our country is yet to be proved.

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*References*

1. Bobrow, M. L. and Friedman, E.: Am. Obstet. & Gynec. **73**: 448, 1937.
2. Goldstein, D. P. and Reid D.E.: Chin. Obstet. & Gynec. **10**: 313, 1967.
3. Hertz, R., Ross G. T. and Lipsett, M. B.: Am. New York and Sc. **114**: 881, 1964.
4. Naotaka, I.: Obstet. & Gynec. **42**: 1, 1973.
5. Novak and Woodraff: Novak's Gynaecologic and Obstetric Pathology, 7th Ed. P. 599, 1974.
6. Ringertz, N. C.: Acta. Obstet. & Gynec. Scand. **49**: 195, 1970.