

## TROPHOBLASTIC MALIGNANCY

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Choriocarcinoma is a rare but most malignant tumour which has geographic and racial distribution. In Great Britain and North America its incidence is 1:40,000 to 1:50,000 pregnancies while in far east countries and Central Africa it occurs: 1:4000 to 1:500 pregnancies. The tumour has very variable clinical manifestations and may present a diagnostic problem specially in early stages when repeated curettage and hormones may be used for episodes of irregular bleeding.

### *Material and Methods*

The present study deals with 13 cases of choriocarcinoma which were admitted to Postgraduate Institute of Medical Education and Research, Chandigarh during the last 5 years (January 1969-December 1974).

### *Observations*

All these patients belonged to poor socio-economic status and were admitted in General Ward, total duration of hospital stay varied from 7 hours to 4 months.

### *Age Distribution*

All the patients were young between 25 and 35 years of age with a mean of 29.9 years.

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### *Parity*

Parity varied from 1 to 5 with a mean of 3.3.

### *Time Interval*

Time lapsed between the last known pregnancy to the development of signs and symptoms of choriocarcinoma varied from 2 months to 5 years with a mean of 24.6 months.

### *Type of Pregnancy Preceding Choriocarcinoma*

In 9 it was full term normal pregnancy, in 2 it was abortion while in the remaining 2 it was molar pregnancy.

### *Presenting Symptoms*

(a) Irregular vaginal bleeding was the presenting symptom in all except 2 patients who had amenorrhoea. Seven patients had multiple curettage outside (1-5 times) for irregular bleeding before diagnosis of choriocarcinoma was made.

Two patients had amenorrhoea the duration varied from 2 to 5 months.

(b) Haemoptysis and dyspnoea was complained of by 7 patients. Three patients had 1-2 months therapy with anti-tubercular drugs before diagnosis of choriocarcinoma was established.

(c) Fever of varying grades was present in 6 patients.

(d) Swelling in abdomen was present in 2 patients.

(e) Vulval swelling and discharge was

present in 2 patients who had secondaries in the vagina and the cervix.

1 patient belonged to AB + ve blood group.

#### Evidence of Growth in Different Organs

It is observed from the above table that in 9 patients uterus was the site of growth. Curettage was done in 6 patients and positive curettings were obtained in 2 patients only. Out of these 4 patients in 3 the report was decidual reaction and in one it was chorionic endometritis. All these 4 patients had growth in the endometrium which was later confirmed on histology of uterus which was available at the time of hysterectomy in 2 patients and at autopsy in other 2.

**Lungs:** Radiological evidence of lung metastases was present in 10 patients while clinically it was suspected in 7 patients only.

**Brain:** Secondaries in brain were suspected in 1 patient who had convulsive fits for the first time during hospitalisation. But it could not be confirmed on investigations.

**Heart:** was involved in 1 patient.

#### Relation with Urinary H.C.G.

Urine was tested by biological method in all the patients. It was positive in 12 patients and negative in 1. The dilution in which this test was positive varied from 1:1 to 1:800.

#### Treatment and Response to Therapy

Eight patients were treated with chemotherapy alone. Four of them died after receiving varying amount of methotrexate (15 mg to 560 mg) and other cytotoxic drugs, rest of the 4 patients showed partial recovery, subjective as well as objective. Their lung metastases diminished, urinary H.C.G. level decreased and patients had sense of well being. These patients left hospital against medical advice because of social reasons and prolonged stay in the hospital.

Five patients were treated by combination of surgery and chemotherapy. Three of these 5 patients were early cases where

TABLE I  
Evidence of Thophoblastic Growth

Organ	Clinical	H.P.E.	Hysterectomy	X-ray	Autopsy
Uterus	9	2	5	-	2
Cervix	1	1	-	-	-
Vagina	2	2	-	-	-
Lungs	7	1	-	10	2
Heart	-	-	-	-	1
Brain	? 1	-	-	-	-

#### Relationship with Blood Group

Out of 11 patients where blood group was done 6 patients belonged to blood group A, (4 Rh + and 2 Rh-ve), 4 had blood group B Rh +. In 2 patients blood group could not be done while only

disease was limited to uterus only, while 2 patients had secondaries in lungs which resolved with chemotherapy before surgery was done. All these patients had complete recovery and were well between 12 to 24 months of follow up (Table II).



TABLE II  
Therapy and Results

Form of therapy	No. of Patients	Response to therapy		Death
		Complete recovery	Partial recovery	
<b>I. Chemotherapy</b>				
a. Methotrexate (15-560 mg)	6	-	4	2
b. Methotrexate + actinomycin D + chlorembucil	1	-	-	1
c. Methotrexate + 6 Mercaptopurine	1	-	-	1
<b>II. Surgery + Chemotherapy</b>				
a. Total abdominal hysterectomy + pre and post operative chemo-therapy	2	2	-	-
b. Total abdominal hysterectomy + post-operative chemotherapy	3	3	-	-

### Side Effects

Side effects are tabulated in Table III.

TABLE III  
Side Effects

Side effects	No. of patients
Vomiting and ulceration of month	8
Maculopapular rash	2
Jaundice	1
Thrombocytopenia	4
Diarrhoea	2

### Discussion

Along with racial and inherent difference which predisposes Asian women more to choriocarcinoma there may be some acquired element of general debility or lack of general resistance which may be responsible for the breakdown of the complicated and delicate host invader balance. May be women from affluent community who are well nourished and well fed are able to resist fragments of trophoblastic tissue more effectively than their counterparts who have low resistance. All the 13 patients in this series belonged to poor socio-economic status with poor general health.

The common observation that molar pregnancy precedes the development of choriocarcinoma in about 40-50% of the cases has not been observed in this series. Here the mole was preceding cause only in 15.4% of the cases while in rest 84.6% of the cases it was either normal pregnancy or abortion which predisposed to choriocarcinoma.

Amenorrhoea is usually not the feature of this disease but it was present in 2 patients who had deep seated myometrial growth. The bleeding in cases of choriocarcinoma is arterial in nature and occurs from the local growth in the endometrium, cervix or vagina. In the absence of growth in these regions amenorrhoea may be explained by hyper-hormonal state due to high level of H.C.G.

It was observed that 6 out of 11 patients (55.5%) belonged to blood group A, while the general incidence of this group in this area has been 20.5%, Dawood *et al* (1971) while analysing 81 cases found that blood group A was significantly higher in patients with choriocarcinoma, whereas group B appeared to be protective. The increased predisposition of

group A to choriocarcinoma and other malignancies (Stomach carcinoma) may be related to some factor perhaps an enzyme where genetic locus is associated with gene for blood group A.

Three patients who had shown decidual reaction on endometrial curettings were harbouring growth in the uterus. So when diagnosis of choriocarcinoma is suspected the finding of decidual reaction in the endometrial curettings may be taken as an ominous sign and patient should have urine for H.C.G. before disregarding this report in favour of choriocarcinoma.

Amount of H.C.G. excreted in urine bore no relation with the extend of spread of disease. Some patients who had growth only limited to uterus had pregnancy test positive in 1:800 dilution while others with wide spread metastases in lungs and liver had this test positive only in undiluted specimen.

Chemotherapy alone did not give good results, there was mortality of 50% and 50% patients had only partial recovery from the disease, these were the patients

where disease was far advanced in lungs and liver. Complete recovery occurred in all patients who were treated by combination of chemotherapy and surgery.

#### *Summary and Conclusion*

The disease occurred in patients with low socio-economic status and with poor general health.

55.5% of patients belonged to blood group A.

Decidual reaction was observed in endometrial curettings in 3 patients inspite of the presence of growth in uterus.

Normal delivery and abortion were preceding causes in 84.6% of cases while molar pregnancy was preceding only in 15.4% of cases.

Combined treatment with surgery and chemotherapy carried the best prognosis.

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