CHORIOCARCINOMA

(A Case Report)

by

N. N. Roy Chowdhury, M.B.B.S., D.G.O., M.O., D.Phil. (Cal.), M.R.C.O.G. (Lond.), F.R.C.S. (Edin.), F.A.C.S.

Choriocarcinoma has attracted considerable attention since its description by Sanger (1889). Trophoblastic tumours are common in South-east Asian, Far Eastern and Latin American countries. Although the exact cause for this is not known, under-nourishment, high birth-rate and overpopulation in the developing countries may be interlinked with this high incidence of trophoblastic growths. The incidence of choriocarcinoma has been quoted by different Indian authors varying from 1 in 950 (Rao and Reddy, 1970) to 1 in 4061 (Rao, 1970). In comparison to this high incidence, it is a rare form of cancer in the Western countries and its frequency is given by Schumann and Voegelin (1927) as one in 13,000. An unusual case of choriocarcinoma with metastases in lungs, brain, and liver is recorded here which illustrates several features of the disease which are of practical importance.

Case Report

Mrs. S. R., a Hindu lady, aged 22 years, para 2+0 was admitted in the Medical Ward of R. G. Kar Medical College, Calcutta, under a Chest Physician on the 3rd February, 1970 with the complaints of haemoptysis for three months, general weakness for 2 months, headache for one month and severe chest pain for 1 day prior to admission

Reader in Obstetrics and Gynaecology, R. G. Kar Medical College, Calcutta.

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During investigation in the Medical Ward, the patient gave a history of a molar pregnancy 9 months previously and cannon-ball shadows were found in the left lung in a skiagram of the chest. She was subsequently transferred to the Gynaecological Ward on th 6th February, with the provisional diagnosis of Choriocarcinoma.

On further enquiry the patient said that 9 months previously she had a molar pregnancy of 16 weeks' duration, ending in spontaneous expulsion of the mole at home following which she had severe bleeding per vaginam. She was then transferred to a district hospital where curettage was done. After 3 months she started irregular vaginal bleeding which continued for 2 months. For 3 months prior to admission in the R. G. Kar Medical College Hospital she had haemoptysis and leucorrhoea with occasional bleeding per vaginam. Her health was deteriorating fast for the last one month.

Obstetric History: She was married for 7 years and was a mother of two children both living, delivered normally at term. The first one was a male baby 5 years of age and the second one was a female baby 4 years of age.

Physical Examination: General condition of the patient was poor and she was moderately anaemic with slight icteric tinge. Respiratory system—she had no cyanosis. On the left side below the fifth rib an impaired percussion note, diminished focal resonance and distant breath sounds with scattered crepitations were found. Right lung was normal. Liver was just palpable and tender. Spleen was not palpable. There was neither any free fluid in the peritoneal cavity nor any palpable lump in the ab-

domen. Cardiovascular and nervous systems were normal.

Vaginal Examination: Uterus was bulky —about 14 weeks' size, soft in feel and mobile. Cervix was soft, external os—patulous. Cystic ovaries were palpable on both sides about size of a hen's egg. Slight dark coloured vaginal bleeding was present.

Investigations

Blood: Haemoglobin—52%, R.B.C.—4.2 million/cmm. W.B.C.—10,800/cmm. Poly—70%, lympho—20%, eosino—8%, mono—2%. E.S.R.—3 m.m. per hour.

Blood Biochemistry: Fasting blood sugar: 88 mg. per 100 ml. Blood Urea: 26 mg. per 100 ml. Blood Group: 'O' Rh. D positive.

Urine: No abnormality detected.

Chest X'Ray: (8th February, 1970) (Fig. 1).

Left Lung shows cannon ball shadows, rounded, medium sized in the posterior segment of the left lower lobe and small, rounded on the dorsal segment of the lower lobe.

X Ray of the abdomen did not show anything suggestive.

Sputum: Neither acid fast bacilli nor chorionic cells could be seen.

Biological Test of Urine: (Toad Test)

Quantitative estimation of urinary chorionic gonadotrophin.

On 6th February, 1970: 3,75,000 I.U.
On 20th February, 1970: 30,000 I.U.
(4th postoperative day)
On 28th February, 1970: 1,75,000 I.U.
(12th postoperative day)
On 17th March, 1970: 10,000 I.U.
(29th postoperative day)
On 31st March, 1970: 5,000 I.U.
(43rd postoperative day)

Course: For the first week she had a moderate degree of fever for which she was given inj. Crystamycin ½ gm. intramuscularly twice a day for 7 days. As she was moderately anaemic, she was transfused with 600 ml. of blood. Due to low general condition contraindicating immediate surgical intervention and because of extensive pulmonary metastasis she was initially treated with Methotrexate tablets (2.5 mg) — 2 tablets thrice daily for 7 days from 7th February to 14th February, 1970.

The patient was operated on the 16th February, 1970. During laparotomy a small amount of haemorrhagic fluid was found in the peritoneal cavity. The entire uterus and both ovaries and tubes were removed. There were two hard nodules about 1" in diameter on the undersurface of the liver just by the side of the gall-bladder which were detected during exploration of the abdominal cavity for evidence of metastasis (Fig. 2) A biopsy was taken from one of these nodules in the liver and sent for histopathological examination. 600 ml. of blood was transfused during the operation.

Pathology: Operated specimen (Fig. 3): Uterus was about 12 weeks' size, soft in feel with a smooth serous coat. There were bilateral cystic ovaries — about the size of chest-nut, bigger on the left side. Fallopian tubes were apparently normal, Cut section of the uterus showed generalised hypertrophied, oedematous and haemorrhagic endometrium with thickened myometrium.

Histopathological report: Endometrium and myometrium showed evidence of choriocarcinoma with infiltration in the muscles at different sites. Ovaries showed theca lutein cysts. There was extensive necrosis and haemorrhage in the liver tissue with suspicious cells suggesting metastasis. Malignant cells could not be detected in the haemorrhagic peritoneal fluid.

First postoperative week was more or less uneventful. Another course of Methotrexate (5 mg. thrice daily) was administered for 7 days starting from the 25th February, 1970.

On the 27th February, 1970, the patient had severe haemoptysis, headache and developed hemiparesis on the right side following two convulsive attacks, each lasting for about 10 minutes. The latter ceased entirely under the effect of phenobarbitone gr. 2 daily, given for 7 days. Considering the seriousness of the condition Chlorambucil one tablet (Leukeran—4 gm.) was given twice daily for 7 days along with Methotrexate. The patient developed atony of the bladder causing overflow incontinence for which a self-retaining catheter had to be kept for 10 days. The function of the bladder improved considerably after

this period. There was further improvement of hemiparesis.

On the 13th March, 1970 there was again a rise of temperature upto 102°F and the patient was restless and developed convulsions. The latter could be checked with phenobarbitone gr. 2 daily for 5 days. Another course of combined chemotherapy (Methotrexate 5 mg. thrice daily and Leukeran 4 gm. twice daily) was administered for 7 days from 13th March, 1970.

On the 20th March, 1970 neurological examination showed gradual improvement of the patient from hemiparesis and her bladder function was almost normal. Total dose of Methotrexate administered was 315 mg. and Leukeran 112 mg. There were no toxic manifestations from the combined use of the cytotoxic drugs.

The patient was discharged from the hospital on the 31st March, 1970 with the advice to come for follow-up after 4 weeks. At the time of her discharge from the hospital her bladder function was normal, the hemiparesis was much improved and the hormone titre in her urine was about 5,000 I.U.

Since then the patient did not turn-up for follow-up in spite of repeated communications to her. It was reported afterwards that the patient expired in October, 1970 at her residence due to another attack of hemiplegia followed by coma.

Discussion

Choriocarcinoma is notorious for the high incidence of metastases in different vital organs due to early haematogenous spread, delay in admission and diagnosis. Rao (1970) reviewed 121 cases of choriocarcinoma out of which 80 (66.1 per cent) had secondaries. The commonest site was the lung-56 per cent of cases. Vagina was involved in 38 cases (29 per cent), cervix in 8 cases, ovary in 3 cases, lymph nodes in 1 case and other sites in 5 cases. The presence of metastasis simultaneously in three different sites like lung, liver and brain as happened in this case is rarely recorded in the literature.

Smallbraak (1957) observed cerebral metastasis in 5 out of 17 reported cases of which in at least 2 cases sudden death was caused by haemorrhage in brain. In two other cases death was hastened by the presence of cerebral metastasis. In another case the transient neurological disturbances (aphasia and hemiplegia) gradually disappeared together with simultaneous disappearance of the chorionic gonadotrophin in the urine. Peel, Dawson and Mather (1955) reported one case having 4 attacks of epilepsy, together with symptoms of aphasia, blurred vision and parasthesia of the right half of the body developing between the 9th and 27th day after hysterectomy.

Advent of chemotherapy has considerably modified the prognosis and treatment of this disease. Lewis *et al*, (1966) rationalised the use of adjunctive chemotherapy prior to indicated operation, particularly in presence of metastasis in chorionic carcinoma. This helps in prevention of spread of viable tumour cells at the time of surgery. A programme of operating on these patients after a course of chemotherapy was instituted.

In the present case too one course of Methotraxate was administered prior to hysterectomy.

Recently Li (1961) "Double or Triple Therapy" regimen is being evaluated in those patients who are resistant to Methotraxate. This consists of Methotrexate, Chlorambucil and/or Actinomycin D given simultaneously. Paranjothy (1970) tried in Methotraxate-resistant cases, 6-Mercaptopurine and Chlorambucil along with Methotrexate. Her results in Methotrexate-resistent cases are very poor. In the present case "Double Therapy" consisting of Methotrexate and Chlorambucil gave encouraging results at least for a short period. Due to lack of follow-up the fatal outcome came within 7 months.

Summary

A case of Choriocarcinoma with triple metastases in lung, liver and brain is reported. Rationale for the use of adjunctive chemotherapy prior to surgery and "double or triple chemotherapy" regimen is discussed.

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See Figs. on Art Paper V