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CHORIOCARCINOMA

Case with unusual clinical presentation and apparent long survival

By CHEW KEW KIM, M.B., B.S. (Singapore),
The Medical Unit,
General Hospital, Johore Bahru.

Although choriocarcinoma is relatively uncommon in Western countries, it has attracted a vast medical literature, and the vagaries of its behaviour have been meticulously documented. No tumours in gynaecological practice have given rise to more interesting and more challenging problems of clinical and pathological diagnosis.

Case Report

The patient was a 38-year-old Chinese woman, first admitted to the General Hospital, Johore Bahru, on 7-7-63 with a history of pain of sudden onset, localised to the right hypochondrium. The pain was excruciating, and was associated with fever and recurrent vomiting.

She was found to be febrile, pale and mildly jaundiced. The abdomen was guarded and tender, especially in the right upper quadrant. Murphy's sign was positive; both the liver and the spleen were found to be moderately enlarged.

Straight X-ray of the abdomen showed several small gall-stones. The serum bilirubin was 1.9 mgm%; the haemoglobin was 6.0 gm%. She had a reticulocytosis of 12.2% and her peripheral blood film showed marked hypochromia, anisocytosis and poikilocytosis.

The patient was managed conservatively as a cases of cholelithiasis with biliary tract infection and colic. Recovery was uneventful and she was discharged from hospital about a week later.

On 4-8-63, i.e., four weeks later, the patient was re-admitted to hospital for another episode of severe abdominal pain. There was no fever or vomiting. The clinical findings were similar to those at her previous admission. Although her initial pain was promptly alleviated by pethidine and atropine, there were subsequent episodes of milder pain. She also had a mild intermittent temperature of 99°–100°F (with an occasional peak of 101°F) after admission.

In view of her marked anaemia, mild icterus, hepato-splenomegaly and radiologically demonstrated cholelithiasis, she was investigated for an intravascular haemolytic process; none was found. There were no malarial parasites in the many blood films examined. Ascaris and ankylostoma ova were found in the stools, but there was no evidence of **Entamoeba histolytica** infection. X-ray of the chest showed that the right arch of the diaphragm was markedly raised (Fig. 1).

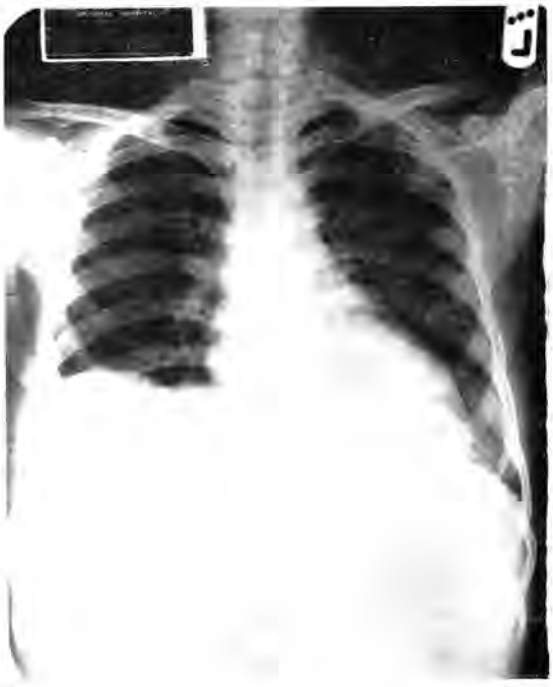

Fig. 1

As she had experienced an attack of dysentery several months previously, it was decided to treat her amoebic liver abscess, which is quite commonly seen in Johore Bahru Hospital. Emetine injections were started and

aspiration of what appeared to be a liver abscess was attempted on 26-8-63. The aspiration needle was inserted under local anaesthesia; there was no pus, and only about 2 ml. of blood was drawn into the aspiration syringe. About 10 minutes after the attempt at aspiration began, the patient suddenly showed signs of acute cardio-respiratory distress and rapidly went into shock. Resuscitative measures were instituted, but the patient expired within 15 minutes.

At necropsy (Dr. P. S. Raman), several pints of blood-tinged fluid were found in the peritoneal cavity. The liver was grossly enlarged, being studded by numerous dark-red, haemorrhagic nodules up to 8 cm. in diameter. Some of these were raised above the liver surface. There was a minor laceration on the surface of the largest nodule, which appeared to be the site of entry of the aspirating needle. The cut surface of the nodules showed a variegated appearance with alternating zones of dark and light red (Fig. 3). A few small

Fig. 3

pigment stones were present in the gall-bladder. The spleen was two to three times normal size, There was no gross abnormality of the uterus and adnexae externally. All other organs, including the lungs, appeared normal. The brain was not examined.

Histological examination of the liver (Prof. J. B. Duguid) revealed choriocarcinoma (Fig. 4).

The patient's past history, which was later obtained from the previous case notes and from the husband, was interesting and significant. She had three children, who at the time of her death were 11, 9 and 7 years of age respectively.

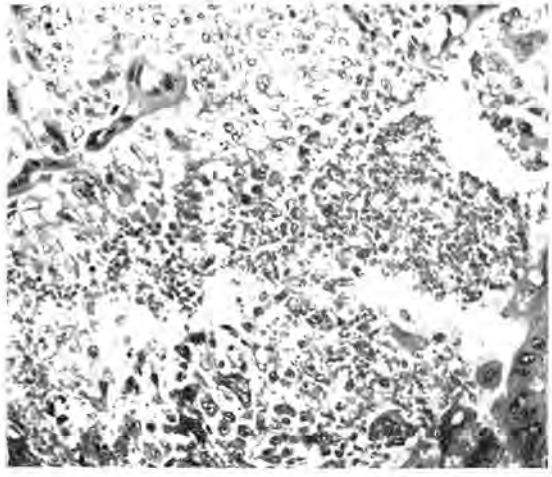

Fig. 4

Some 5 years previously, on 10-11-58, she was admitted to the District Hospital, Kluang, complaining of vaginal bleeding of about 3 weeks' duration. At that time she had been amenorrhoeic for 4 months, but the uterus was disproportionately enlarged, corresponding in size to a 20–24 weeks gestation. Foetal parts could not be palpated and their absence was radiologically confirmed. The patient was pale and showed signs of toxaemia of pregnancy. A diagnosis of hydatidiform mole was made. Hysterotomy, via a lower abdominal incision, was done on 15-12-58, and molar tissue was evacuated.

About 25 days after hysterotomy she complained of a sudden pain in the right chest. The percussion note over the base of the right chest was impaired and breath sounds were absent. Chest aspiration was attempted, yielding only a few ml. of blood-stained fluid.

On 16-3-60 the patient was again admitted to the District Hospital, Kluang, complaining of vaginal bleeding of 12 days' duration after having been amenorrhoeic for 3 months. She was febrile, the uterus was clinically enlarged in proportion to the period of amenorrhoea, and a diagnosis of "septic abortion" was recorded on her notes. X-ray of the chest showed elevation of the right arch of the diaphragm (Fig. 2). Before this could be investigated further, or the uterus evacuated, for reasons

not clearly known, the patient left the hospital of her own will within a week of admission. The vaginal bleeding was said to have gradually improved without further treatment.

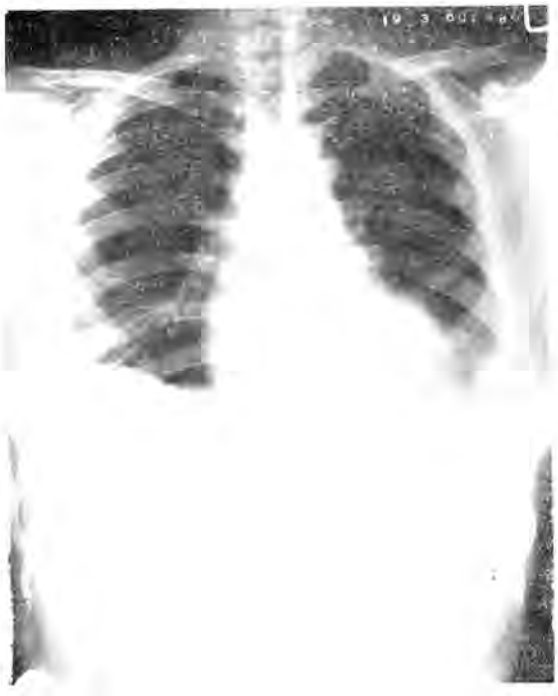

Fig. 2

Some time in 1961 the patient was said to have a mild haemoptysis on one occasion. There were no other associated symptoms and treatment was not sought. Her menses had been "irregular and scanty" since she recovered from the "septic abortion."

Comment

We postulate the following sequence of events:—

(1) 1958 — Hydatidiform mole.
Clinical evidence of lesion at the base of the right chest.

(2) 1960 — Radiological evidence of a hepatic lesion, possibly metastatic choriocarcinoma.

(3) 1961 — Haemoptysis, possibly from a choriocarcinoma nodule in the lung.

(4) 1963 — Death from massive choriocarcinomatous deposits in the liver.

The arguments in favour of this hypothesis are as follows:—

In 1958 the patient had an indubitable hydatidiform mole. This may have given rise to a choriocarcinoma, as some 40–50% of chariocarcinomata are preceded by a mole (Novak and Novak, 1958; Willis 1960). Such a choriocarcinoma may not become clinically evident for several years (Hunter and Dockerty, 1955; Brown et al 1940; Natsuma and Takada, 1961).

The aetiology of the chest lesion seen at this time is difficult to evaluate. An X-ray of the chest was taken, but regretably the report was not written into the case notes and the film is not now traceable.

In 1960 there was evidence that the patient was pregnant. However it is difficult to be sure that the diagnosis of "septic abortion" was correct, as the uterus was not evacuated. The X-ray of the Chest showing a degree of elevation of the right arch of the diaphragm (Fig. 2) closely resembling that seen in 1963 (Fig. 1) suggests that the choriocarcinomatous deposits were already there in 1960. Lepow 1959) who reported coexistent normal pregnancy and choriocracinoma believed that the malignant tumour could originate from the trophoblastic tissue of the existing pregnancy. As the diaphragm was already appreciably raised in 1960 at the time of the "abortion," we do not think that the choriocarcinoma in our patient originated from the "pregnancy ending in abortion," but rather the choriocarcinoma must have preceded the "abortion" by some time.

The absence of a lung lesion at necropsy does not necessarily mean that the haemoptysis in 1961 could not have been due to a choriocarcinomatous nodule, as such lung nodules are known to disappear spontaneously (Novak and Novak, 1958; Chua and Hou, 1957).

The fatal illness in 1963 showed beyond doubt the presence of large masses of choriocarcinomatous tissue in the liver. It is unfortunate that the uterus was not examined in detail, but there was no evidence of gross involvement. Disappearance of the primary uterine tumours in patients with metastatic

choriocarcinoma is, however, not unknown (Novak and Koff, 1930; Novak and Novak, 1958).

The discovery of choriocarcinoma in a patient whose presenting symptoms and signs suggested biliary tract infection with colic is of great interest. The repeated episodes of pain in the right hypochondrium were probably, at least in part, the result of haemorrhage into the malignant nodules with stretching of the liver capsule. The fever, the anaemia, and the icterus could be explained on the basis of breakdown of this blood.

Discussion

If it is assumed that the interpretation of the sequence of events is correct, then the survival of this patient for at least three years is of great interest. Choriocarcinoma is generally regarded as one of the most highly malignant of all neoplasms. It is generally fatal within 6 to 12 months with a one-year survival rate of only 17.5% (Novak and Novak, 1958). In fact, for many years it was an axiom that if the patient survived she probably did not have a choriocarcinoma. In a group of 7 patients, Novak and Seah (1954) observed that, with no treatment, all were dead within 6 months. There are, on the other hand, recorded a considerable number of cases of long survival. These, however, were almost invariably patients who had been treated radically. Of the 74 cases studied by Novak and Seah (1954) from the Mathieu Memorial Chorionepithelioma Registry (MMCR), 13 remained well, 11 of them for more than 2 years and 2 of them for more than 1 year. Subsequently the surviving patients from the MMCR series were followed up by Brewer et al (1961), who reported survival of over 5 years. Long survival was also reported by Brews (1939) and Smallbraak (1957).

In this case the liver appeared to be the only organ with choriocarcinomatous deposite. The finding of choriocarcinoma metastases in the liver is not uncommon, but in cases where hepatic metastases are found other organs are almost invariably involved. Brewer et al (1961) in their follow-up of the 21 cases from the MMCR series reported the presence of metastases in 6 of the patients: none involved the liver. Willis (1960), writing on the subject of remote metastases in choriocarcinoma, referred to 25 necropsies, 13 of which had metastases in the liver. In 9 cases in which the spleen or the intestine showed metastases the liver nevertheless escaped. Chan (1962) in a series of 17 cases with necropsies found 11 with metastases in the gastrointestinal tract without specifically mentioning the liver. Hou and Pang (1956) found hepatic metastases in 14 of their 28 necropsied cases of choriocarcinoma. Park and Lees (1950), analysing 516 cases of choriocarcinoma, reported hepatic metastases in only 43 cases, whereas metastases in the lungs and vagina were found in 115 and 105 cases respectively.

It is to be noted that many aspects of this fascinating case must perforce remain undiscussed as investigations were not as complete as they might have been. These shortcomings are much regretted.

Summary

1. A case of choriocarcinoma with an unusual presentation is reported. The patient, who had a hydatidiform mole 5 years previously presented with features suggestive of a biliary tract infection with colic. She died following an attempt at aspiration of what appeared to be a liver abscess. At necropsy the liver was found to be the site of multiple nodules of choriocarcinoma.

2. The apparent long survival without treatment, the hepatic metastases, and several other features are discussed.

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