

## Missed Diagnosis

# Hepatic metastases due to choriocarcinoma

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**Summary:** A 34 year old female presented with weight loss and hepatomegaly. Liver biopsy revealed clinically unsuspected metastatic choriocarcinoma. Severe haemorrhage occurred, and the patient died following complications after laparotomy. The possibility of choriocarcinoma should be remembered in women of child-bearing age who present with liver metastases; biopsy must be avoided until this diagnosis can be excluded.

### Introduction

Metastatic liver disease is most commonly due to adenocarcinoma, and liver biopsy is frequently undertaken to provide histological confirmation of the diagnosis. We report an unusual case in which hepatic metastases were due to choriocarcinoma.

### Case report

A 34 year old woman presented with a 4-week history of anorexia, nausea, abdominal discomfort and weight loss of 5 kg. For 2 weeks she had had an intermittent fever, and 2 days prior to admission she developed right hypochondrial pain.

Eighteen months previously she had experienced transient neurological symptoms, possibly due to brain stem demyelination, which resolved completely. She was married, with two children aged 5 years and 23 months; both were full term normal pregnancies. An intra-uterine contraceptive device was inserted after the birth of her second child. This was removed five months before admission because of irregular periods and intermenstrual bleeding.

On examination, she was pale and ill-looking, but anicteric. In the abdomen a firm tender liver was palpable 10 cm below the costal margin. Rectal and vaginal examination was normal, and physical

examination was otherwise unremarkable. Investigation showed: haemoglobin 73 g/l, mean red cell volume 84 fl, white cell count  $8.3 \times 10^9/l$ , platelet count  $206 \times 10^9/l$ , prothrombin ratio 1.5, kaolin cephalin clotting time 45 seconds (control 40 seconds). Liver function tests showed: bilirubin  $17 \mu\text{mol/l}$ , alkaline phosphatase 288 IU/l (normal range 20-90), aspartate aminotransferase 33 IU/l (normal range <18), lactate dehydrogenase 376 IU/l (30-90), total protein 63 g/l, and albumin 32 g/l. Hepatitis B surface antigen was not detected. The serum alpha fetoprotein concentration was less than 5 kU/l (normal range <10). The chest radiograph was normal. Abdominal ultrasound examination revealed a grossly enlarged liver with multiple hyperechoic areas throughout both lobes, strongly suggestive of metastases.

The patient was transfused with 5 units of blood, after which her haemoglobin rose to 110 g/l and her prothrombin ratio improved to 1.2. Percutaneous liver biopsy was then undertaken to obtain histological confirmation of the suspected diagnosis of metastatic liver disease. Approximately 18 hours later the patient began passing large amounts of altered blood per rectum, with a fall in blood pressure to 90/50 mmHg. A rapid blood transfusion was commenced. Upper gastrointestinal endoscopy was normal to the second part of the duodenum. Colonoscopy revealed fresh blood appearing from the terminal ileum, but no colonic lesion. Coeliac axis and mesenteric angiography failed to demonstrate the source of blood loss. The patient continued to bleed briskly, and she was therefore referred for laparotomy.

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At operation, the liver was found to be largely replaced by numerous friable tumour deposits. One of these, in the right lateral aspect of the liver, had ruptured and was bleeding profusely. This was 'shelled out' and sent for histological examination. There was considerable difficulty in securing haemostasis, which was only achieved after ligation of what was believed to be the common hepatic artery.

Subsequently her progress was poor, with a steadily rising bilirubin. Histology of the operative specimen revealed necrotic liver and isolated clusters of large tumour cells consistent with choriocarcinoma, which stained positively for human chorionic gonadotrophin (HCG) by immunoperoxidase. The serum HCG concentration was greatly elevated at 280,000 IU/l.

Treatment was commenced with actinomycin D, and the patient was transferred to a specialist unit. In view of her deepening jaundice, a further liver ultrasound scan was performed, which showed marked dilatation of the biliary tree. A second laparotomy was undertaken, which revealed a ligature around the common hepatic duct. This was removed, but severe haemorrhage occurred from the friable tumour deposits in the liver. Haemostasis could not be achieved, and the patient died intra-operatively. Necropsy confirmed the presence of choriocarcinoma throughout the liver. However, there was no evidence of tumour in the uterus or in any other organ.

## Discussion

Choriocarcinoma is a rare malignant tumour of trophoblast, complicating between 1:13,000 and 1:50,000 pregnancies in Caucasian populations. The incidence is much higher in Asia. In Bagshawe's series, 66% of cases occurred after molar pregnancies, with smaller proportions following abortion (15.2%) and term delivery (18.8%). The mean time to presentation after term delivery was 11.2

months, and only two cases out of 30 (6.7%) presented after 20 months post-delivery.<sup>1</sup>

A high proportion of patients with choriocarcinoma have metastases at presentation, the commonest sites involved being the lungs, vagina and central nervous system. Liver metastases are less common, occurring in 4 - 20% of patients with metastatic trophoblastic disease.<sup>1-3</sup> The liver may be the sole site of spread, and in one series 5 out of 15 patients with hepatic involvement had no other detectable site of metastases.<sup>3</sup> Distant spread of choriocarcinoma in the absence of a uterine tumour is well documented.<sup>4,5</sup> This might be explained by regression of the primary tumour after it has metastasized; by the occurrence of malignant change in blood-borne trophoblast; or by deportation of all the trophoblast which has undergone malignant change.<sup>1</sup>

The case described above is somewhat unusual in its combination of features: the liver was the only site of metastasis; no primary tumour was found; and there was a long latent period between the antecedent (normal) pregnancy and presentation. The clinical picture led to an initial diagnosis of metastatic adenocarcinoma from an occult gastrointestinal primary tumour, with multicentric hepatocellular carcinoma a less likely possibility.

Liver biopsy was undertaken in an attempt to obtain a histological diagnosis. This led to rupture of one of the friable hepatic metastases, with massive haemobilia presenting as rectal bleeding. The severe haemorrhage and surgical complications resulted in a fatal outcome.

The possibility of choriocarcinoma should be remembered in women of child-bearing age who present with hepatic metastases from an occult tumour. In view of the recognized danger of haemorrhage, liver biopsy should be deferred until serum HCG or 24-hour urinary HCG excretion has been measured. If an elevated HCG value is found in the absence of pregnancy, biopsy must be avoided. The patient should be referred to a specialist centre for further assessment and treatment.

## References

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