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Subacute dyspepsia: a curious presentation of an ominous pathology

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Introduction

Dyspepsia is a symptom for a wide range of medical conditions.[1,2] It is common for practitioners to treat it symptomatically in the first instance. However, sometimes it can reflect ominous pathology that requires robust intervention. In this article, we present a case of a patient with dyspepsia.

Case presentation

A 45-year-old man presented to the hospital with subacute dyspepsia. He was seen by primary care team who administered proton pump inhibitors that failed to resolve the symptoms. The patient re-presented to the hospital as he started to have leg swelling and general feeling of tiredness.

Blood tests showed alarmingly elevated haemoglobin levels and conjugated hyperbilirubinaemia. Also, the patient had hepatomegaly and bilateral pitting leg oedema. Thoraco-abdominal imaging elucidated a large malignant tumour emanating from the liver causing pressure on the intrahepatic ducts and a tumour thrombus invading the hepatic veins, inferior vena cava, and the right atrium, filling almost two-thirds of the right atrium and causing a picture of right heart failure (Fig 1).

Tumour markers were negative except for elevated lactate dehydrogenase, other causes of acute hepatitis were also negative (Table 1).

Given the extension of the tumour, it was deemed too risky to undergo biopsy and that a surgical option would be futile. Accordingly, a plan for palliative management was put for symptom control and early hospital discharge. The patient sadly died 1 month after presentation to the hospital.

Discussion

This patient presented with anatomical symptoms of his tumour, the feeling of distension, dyspepsia and jaundice. The symptoms weren't thoroughly investigated on primary presentation due to it being a common complaint.

Interestingly, the patient had high haemoglobin levels. It is known for sarcomas to cause the triad of polycythaemia, thrombocytopenia and intractable heart failure.[3] This can be compared with this case as the tumour had likely emanated from

Fig 1. Computed tomography of the thorax, abdomen and pelvis showing an 11 cm malignant mass in the caudate lobe of the liver, leading to intrahepatic biliary obstruction and inferior vena cava tumour thrombus precipitating a lower leg oedema.

vascular origin ie the inferior vena cava.[4,5] Multiple studies have shown that primary hepatic leiomyosarcomas present insidiously, usually start in a vessel such as the portal vein and are associated with a tumour thrombus. It is of note that with this type of malignancy, the patient has normal levels of neoplastic markers such as alpha-fetoprotein, carcinoembryonic antigen and cancer antigen 19-9.[6] Leiomyosarcoma is reportedly curable with surgical resection if the tumour has no extrahepatic spread and the patient

Table 1. Investigations showing basic blood tests, liver function tests and tumour markers

TEST	RESULT	TEST	RESULT
Bilirubin	507 µmol/L	Conjugated	337 µmol/L
Creatinine	104 µmol/L	Adjusted Ca	2.64 mmol/L
Na	124 mmol/L	K	4.1 mmol/L
Hb	212 g/L	Haematocrit	0.652 L/L
ALT	98 U/L	ALK P	190 U/L
Albumin	24 g/L	PT	22 seconds
CRP	49 mg/L	ESR	21 mm
NT pro BNP	663 pg/ml	HBA1C	30 mmol/mol
Virology screen	Negative	Amylase	51 U/L
CA19-9	52 U/ml	Antinuclear antibody (Hep-2)	Negative
CEA	1.2 µg/L	Gastric parietal cell antibody	Negative
Alfa FP	<4 kU/L	Liver kidney microsomal antibody	Negative
LDH	924 U/L	Mitochondrial antibody	Negative
Caeruloplasmin	0.57 g/L	Smooth Muscle antibody	Negative
Erythropoietin	14.3 IU/L	IgG	24.5 g/L
JAK2 exon	Not detected	IgM	1.15 g/L
JAK2 V617F	Not detected	IgA	7.43 g/L

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is fit for surgery. Unfortunately, in our patient's case, the tumour had extrahepatic spread and this option was not feasible.

There is a proven link between hereditary retinoblastoma and development of sarcoma; our patient did not have family history of retinoblastoma but similar cases have been reported in the literature specifically for the development of liver sarcoma.[7,8]

Conclusion

For patients with dyspepsia who do not readily respond to simple measures, further investigations such as abdominal ultrasound should be offered. High haematocrit, low platelets or acute heart failure should warrant further investigations. Future research is required to assess the link between childhood retinoblastoma and liver sarcoma to provide possible screening if such a link is proven. ■

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