Beware the person with the glass eye and the large liver

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DESCRIPTION
A 67-year-old woman presented to the emergency department reporting of epigastric fullness, fatigue and weight loss.

Physical examination revealed three fingerbreadths of hepatomegaly. Blood tests were unremarkable, save for a moderately raised erythrocyte sedimentation rate.

An urgent CT of her abdomen demonstrated two large liver lesions of low attenuation on the non-enhanced scan (figure 1A), showing heterogeneous enhancement in the arterial phase (figure 1B) with contrast washout after a 5 min delay (figure 1C), an appearance typical of hypervascular metastasis. Ultrasound-guided biopsy of one of these lesions was performed as a primary tumour was not identified. This revealed metastatic melanoma, however the primary lesion was not apparent on clinical examination.

At a follow-up appointment the patient admitted to progressively worsening headaches. Non-contrast CT scan of the brain excluded any space-occupying lesions. A solid hyperdense mass was however identified at the postero-inferior aspect of the left lobe.

MRI revealed a well-defined, homogenous, intraorbital mass with intrinsic hyperintensity on T1 and fluid-attenuated inversion recovery (figure 2A), showing avid enhancement postcontrast (figure 2B, C). There was no evidence of extraocular extension or associated retinal detachment. Given the advanced stage of the tumour, she was treated conservatively with systemic chemotherapy and symptomatic pain relief and is currently being followed up regularly by the oncology team. The imaging findings described are characteristic of malignant uveal melanoma which is the most common primary intraocular malignancy in adults and the second commonest

Figure 1 (A) Unenhanced CT of the abdomen. A large hypoattenuating lesion in the left lobe of the liver is seen. (B) Postcontrast CT scan of the abdomen in the arterial phase. Heterogenous enhancement is seen. (C) Delayed phase scan at 5 min. The lesion is of lower attenuation compared to normal liver consistent with washout.

Figure 2 (A) Axial fluid-attenuated inversion recovery sequence: solid lesion arising from the outer postero-inferior aspect of the left lobe. (B) Axial T1-weighted sequence following intravenous gadolinium administration showing significant enhancement. (C) Postcontrast sagittal T1-weighted sequence. The lesion is well defined with no associated retinal detachment or extraocular extension.
ocular malignancy following metastasis. The presence of metastasis heralds a poor prognosis.

**Learning points**

▸ Malignant uveal melanoma is the most common primary intraocular malignancy in adults and the second commonest ocular malignancy following metastasis.
▸ The presence of metastasis in patients with malignant uveal melanoma heralds a poor prognosis.
▸ Melanoma has a characteristic appearance on MRI due to its melanin content demonstrating high signal on T1 and low signal on T2 contrary to other tumours.

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**REFERENCES**