A Case of Pyrexia of Unknown Origin Mimicking Liver Malignancy

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Clinical History

- 40-year-old man
- 1 month fever, malaise

Bloods:

- WCC 9, **CRP 90**
- Mildly raised ALP 161, ALT 54. Normal total bilirubin 12
- Normal thyroid function
- Urine, stool MC&S negative
- Respiratory PCR negative

Laboratory investigations

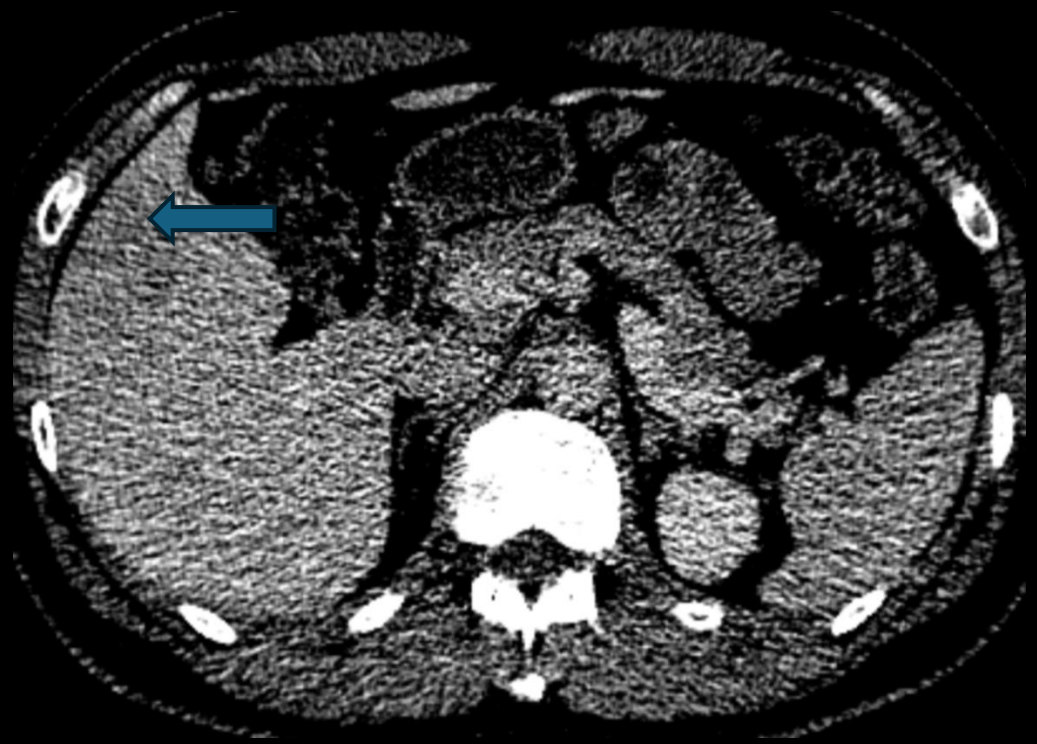
- Extended infection screen including EBV, chlamydia, CMV, EBV, Q fever, hepatitis, parasite, malaria: negative
- Autoimmune panel: negative
- raised plasma viscosity 2.13

Imaging

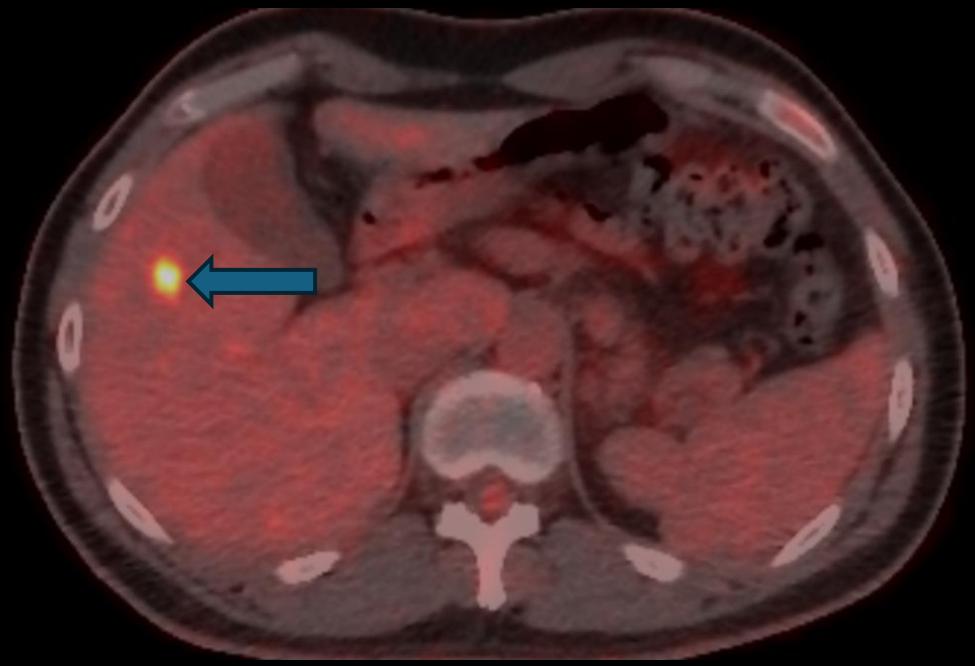
(1) US abdomen: Normal study

(2) CT AP (PV phase)

- 3.2 cm hypoenhancing liver lesion (arrow)



FDG PET-CT



- Focal avid liver uptake (arrow)
- SUV max 9.7

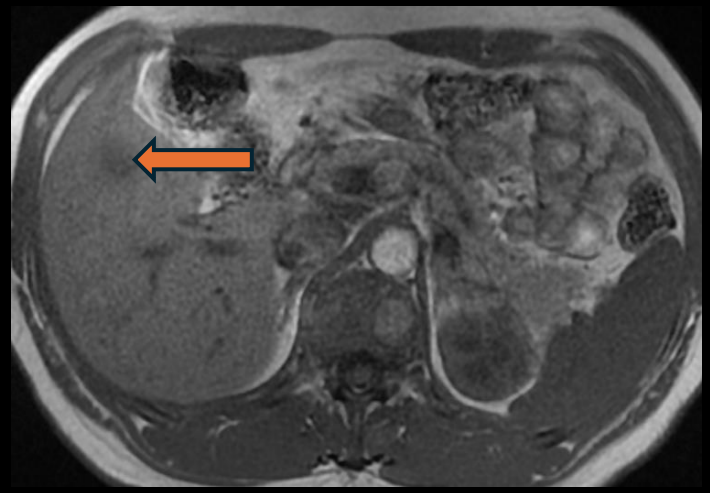
Differentials if NO known primary malignancy

(1) Inflammatory lesion
-Non-infective: sarcoidosis
-Infective: TB, Cryptococcosis

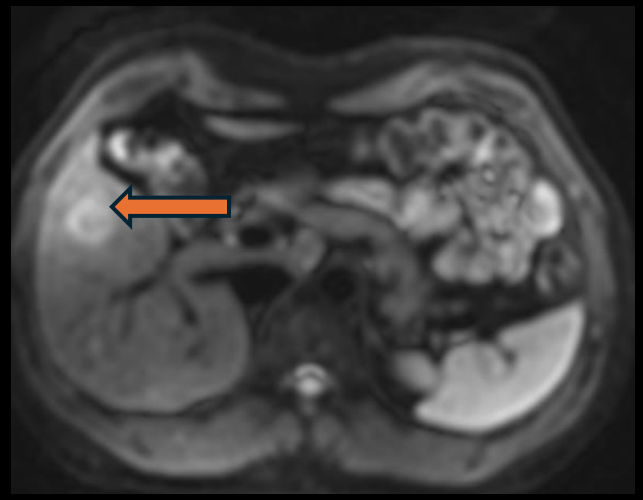
(2) Benign tumour
(haemangioendothelioma, FNH)

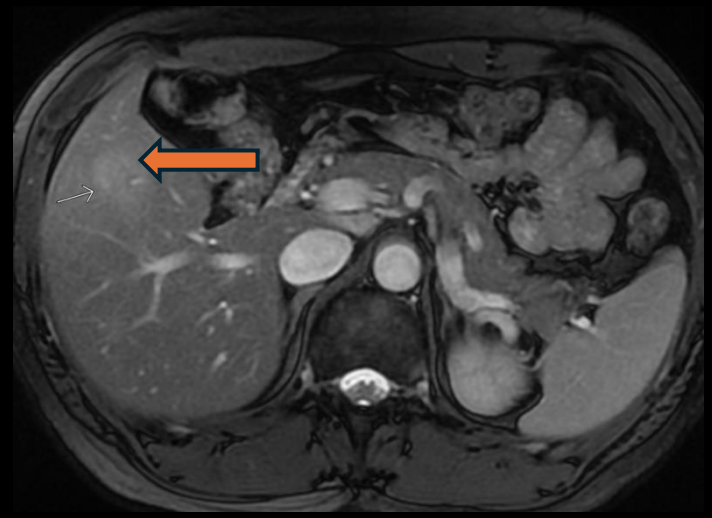
Differentials if known primary malignancy
-Metastasis

MRI Liver with Primovist Contrast

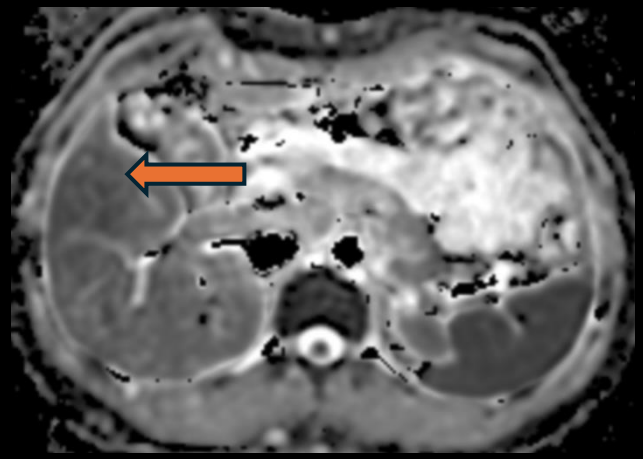


Liver lesion demonstrating Low T1 signal



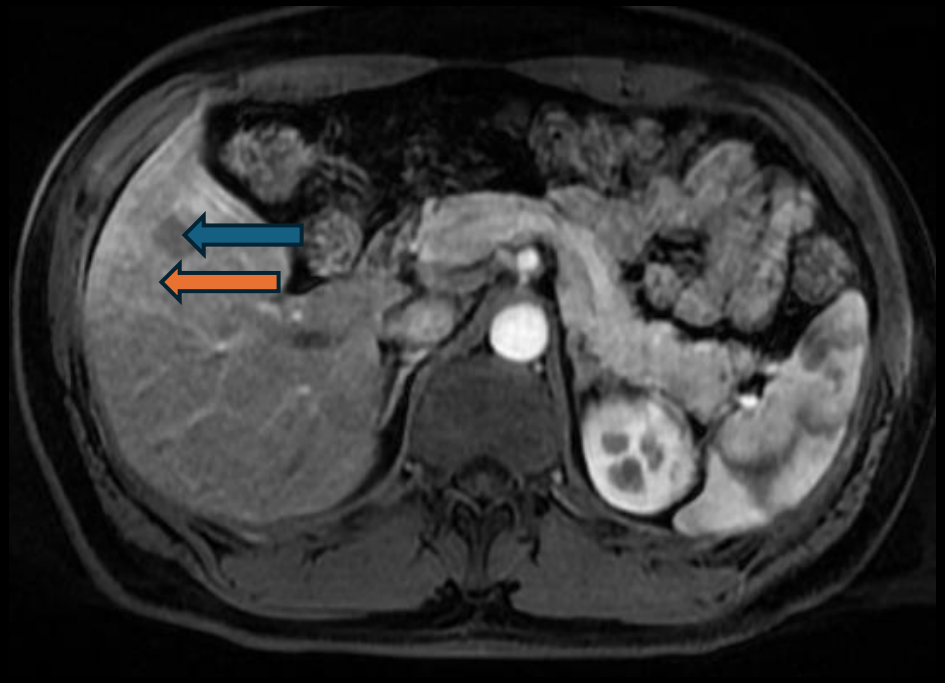


Liver lesion demonstrating intermediate T2 signal

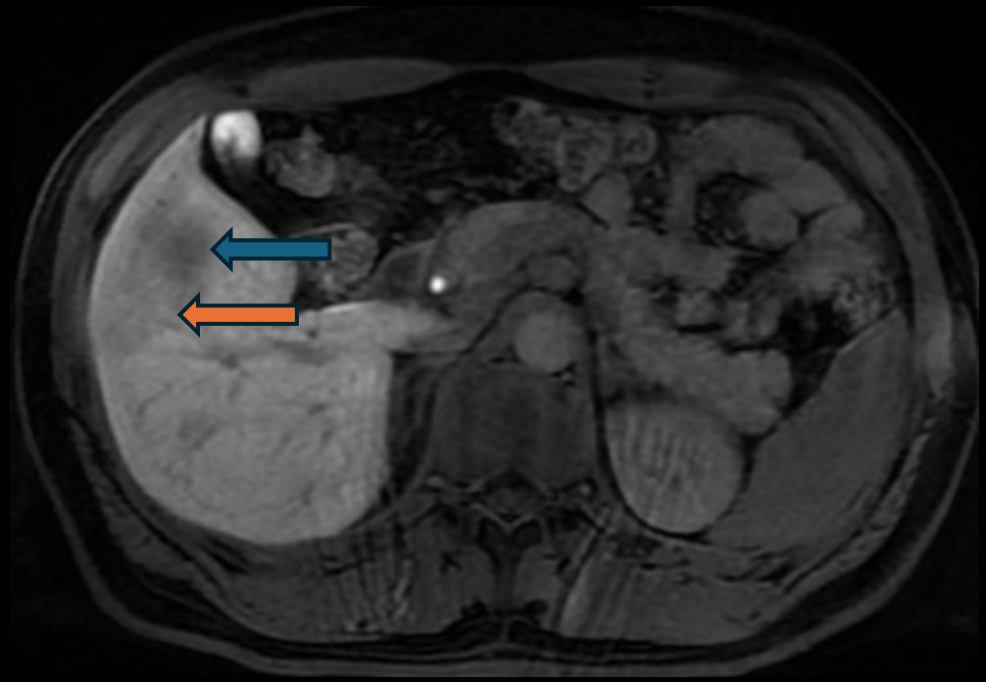


Liver lesion demonstrating restricted diffusion

MRI Liver with Primovist Contrast



Well-defined liver lesion (blue arrow) with **peri-tumoural hyperintensity** (orange arrow) on arterial phase
(Target like hypervascular mass not demonstrated in this patient)



Liver lesion (blue arrow) with **peri-tumoural hypointensity** (orange arrow) on hepatobiliary phase

Biopsy

- Fibro-inflammatory tissue features mixed inflammation
- Morphology alone favor inflammatory pseudotumour

Diagnosis:
Hepatic Inflammatory Myofibroblastic Tumour
(IMT)

Management

- Radiological resolution by 9 months without surgical intervention

Take Home Messages

Hepatic Inflammatory Myofibroblastic Tumour (IMT)

Great mimicker of malignant liver lesion

DDx:

Malignancy

Abscess

Inflammatory adenoma

CLUE

Raised CRP

Think if pyrexia of unknown origin

Histology required for confirmation

Target like hyper-vascular mass

Restricted diffusion

FDG-PET avid

Peritumoural **hyperintensity** at arterial phase.

Peritumoral **hypointensity** at HPB phase

Thank You!