CASE PRESENTATION

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- 47 y/o heterosexual male
- First presented to MRFTT on 14 April 2026 along with his partner, after testing HIV-positive the previous day at a private clinic.
- He had decided to be tested after he learned his prior partner had died from a complication of advanced HIV.

- Complained of fever, cough, anorexia and weight loss for 2 months.
- Employed in the boating industry, daily exposure to birds/bird droppings. No TB exposure or recent sick contacts.

- Physical examination documented as unremarkable.

- Baseline blood investigations and CXR requested. ART commenced with emtricitabine/tenofovir/efavirenz.

- Baseline CD4 count <200 cells/µL (VISITECT CD4 Advanced disease rapid test), baseline VL 1,047,129 c/mL

- AST 93 U/L, ALT 81 U/L, serum creatinine 0.9 mg/dL
- WBC 2.52 x 106/µL, Hb. 125 g/L, PLT 151 x 103/µL

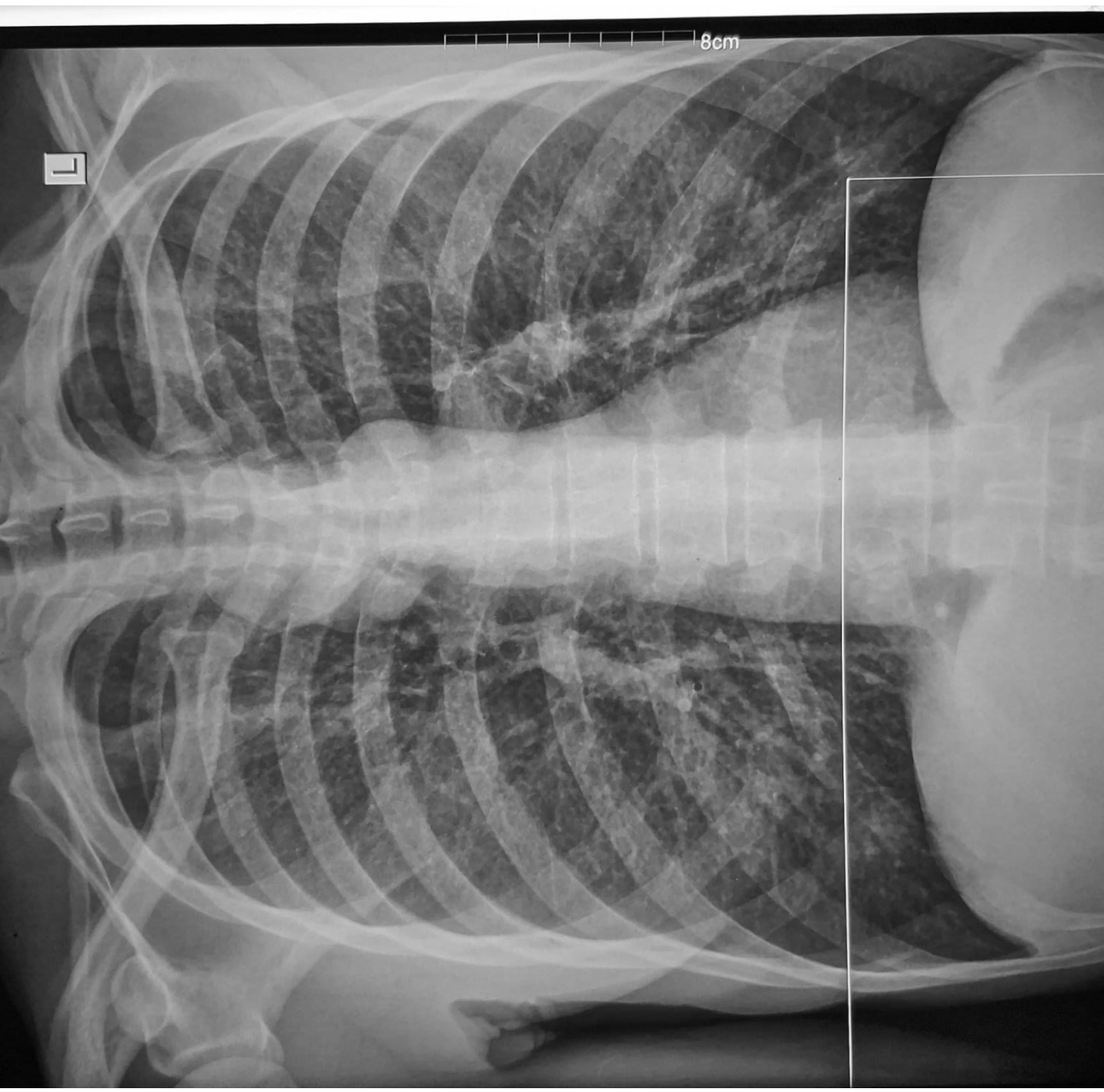
- Admitted to hospital on 24 April 2026
- Complained of painless frank haematuria for 1 day
- Denied fever, chills, abdominal pain, dysuria, urgency

- Examination findings: Mildly tender smooth hepatomegaly (liver edge ~6 cm below costal margin)
- BP 106/85, pulse 102 bpm, temp 38.3C, SpO2 96% on room air

- CT abdomen/pelvis report (24/4/26)
  - Non-obstructing subcentimetre (3mm) left renal calculus. Kidneys otherwise unremarkable
  - Features suggestive of acalculous cholecystitis
  - Multiple mesenteric lymph nodes and multiple pulmonary nodules with associated hepatosplenomegaly, in the background of patient history may present a myeloproliferative disorder or other neoplastic process
  - Clinical and hematological correlation advised

- CXR: Perihilar and lower zone nodules noted bilaterally

- AST 254.7 U/L, ALT 116 U/L, serum creatinine 0.9 mg/dL
- ALP 808 U/L, GGT 767 U/L
- WBC 3 x 10^6/µL, Hb. 129 g/L, PLT 102 x 10^3/µL
- Coagulation screen: INR 1.35


8cm

- Urine microscopy and culture:
  - Numerous RBCs, 0-1 WBS/HPF, 2+ albumin, 1-2 coarsely granular casts/LPF
  - No bacterial growth

- HCV Ab negative, HTLV-1 negative, HBsAg pending

- TB quantiferon assay requested by primary team, serum/urine histoplasma antigen, urine TB LAM assays requested by MRFTT

- Commenced ceftriaxone + metronidazole for acalculous cholecystitis on the advice of the surgical team
- Co-trimoxazole added for PJP prophylaxis

- CT chest requested

- CT chest/abdomen/pelvis (28/4/2026)
  - Innumerable tiny foci in "tree-in-bud" appearance throughout with small focal opacities predominantly at the apices suggestive of early granulomatous formation. Features highly suspicious for miliary TB.
  - Significant and extensive mesenteric lymphadenopathy largest measures up to 1.7 cm with areas of central hypoenhancement suggestive of necrosis. Matted para-aortic lymph nodes noted with no significant pelvic lymph nodes appreciated.
  - Pulmonary features of infective/inflammatory aetiology, consider pulmonary TB, fungal infection or possible miliary metastases.
  - Hepatosplenomegaly with extensive mesenteric and retroperitoneal lymphadenopathy inkeeping with miliary TB, however myeloproliferative disorder and a fungal aetiology cannot be definitively ruled-out.

- Commenced empiric antifungal treatment vs histoplasmosis with oral itraconazole

- ART regimen switched to emtricitabine/tenofovir + raltegravir (due to the interaction between itraconazole and efavirenz)

- National TB program contacted for advice: initially recommended initiation of anti-TB treatment and transfer to the thoracic medicine ward/TB hospital. Upon further review of CT findings, TB treatment not commenced as CT findings were more suspicious of lymphoma than TB. Decision would be reviewed pending haematology findings.

- Haematology team – recommended bone marrow aspiration to investigate worsening pancytopenia

- TB quantiferon, urine TB LAM and serum/urine histoplasma antigen – all unavailable in the public sector, pt. is unable to afford the cost of the tests in the private sector.

- Sputum AFB's negative x 3; sputum TB-PCR result pending (noted that sputum induction was necessary as his initially reported cough had disappeared completely.

- Mycobacterial cultures (including blood cultures for *Mycobacterium avium complex*) are unavailable.

- Pt. identified his prior partner while hospitalized; claims to have separated from her in 2023.

- Noted that she was referred to MRFTT from another treatment site in early 2025, having been diagnosed in 2014 and lost to follow-up subsequently; ? prescribed emtricitabine/tenofovir/efavirenz.

- Noted that her viral loads were all >100,000 in 2023 before she transferred to MRFTT in 2025.

- She died in September 2025 from a suspected “lymphoproliferative disorder”

- Pt’s current partner’s repeat HIV rapid test and ELISA are both negative

SUMMARY

- 47-year-old newly diagnosed heterosexual male presents with a history of anorexia, weight loss, fever and cough.
- ART commenced with emtricitabine/tenofovir/efavirenz
- Baseline CD4 assay <200 cells, VL>1M copies/mL
- Presents 1 week later with painless haematuria, clinical hepatomegaly and pancytopenia.
- CT chest/abdomen/pelvis suggests acalculous cholecystitis, likely miliary tuberculosis with a differential diagnosis of a fungal or myeloproflierative cause
- Commenced empiric treatment for disseminated histoplasmosis with oral itraconazole, ART regimen switched to emtricitabine/tenofovir/raltegravir
- Noted that his past partner had a history of poor adherence to ART on an efavirenz-based regimen

Questions:

- Should his ART regimen be switched to a boosted PI-based regimen in light of his past treatment history and risk of transmitted drug resistance
- Is there sufficient evidence of histoplasmosis to consider intensification of antifungal treatment with amphotericin B (deoxycholate)
- Is disseminated *Mycobacterium avium complex* (MAC) infection a possible diagnosis?

- Study date: 24.04.2026
- CT: Abdomen and Pelvis –non-contrast

- Findings:
- Non-obstructing calculus (0.3cm) within the upper calyces of the left kidney.
- Both kidneys appear unremarkable otherwise with no evidence of hydronephrosis.
- No peri-renal inflammatory changes appreciated. The ureters are normal in course and calibre, without any hyperdense filling defects. Collapsed catheterized urinary bladder.
- The prostate gland is within normal limits.
- The pancreas and adrenal glands demonstrate normal non-contrast appearances.
- There is evidence of pericholecystic fluid with attenuating contents within the dependent aspect of the gal bladder; likely representing biliary sludge.
- The gallbladder wall does appear mildly oedematous.

- No intra- or extra-hepatic ductal dilatation appreciated.
- The spleen is enlarged with an index of 692 and volume of 431.36cc.
- The liver is enlarged with a CC length of 20.0cm in the mid-clavicular line.
- Unremarkableappearance of the unprepared bowel and stomach.
- There are innumerable lymph nodes seen scattered throughout the mesentery; measuring up to 1.7cm/SAD. No free pelvic fluid appreciated.
- Calcifed granuloma seen within the visualized right lower lobe.
- Innumerable nodules seen within the visualized lung bases; with the largest within the inferior lingula measuring 0.5cm. The visualized lung bases and pleural spaces are unremarkable otherwise.
- The bony structures are unremarkable.

- Impression on Radiological investigation:

- Allowing for technical factors;
- Non-obstructing subcentimetre left renal calculus as described. Unremarkable appearing kidneys otherwise.
- Features suggestive of acalculous cholecystitis.
- Multiple mesenteric lymph nodes and multiple pulmonary nodules with associated hepatosplenomegaly, in the background of patient history, may represent a myeloproliferative disorder or other neoplastic process. Clinical and haematological correlation advised.

- Study date: 28.04.2026
- CT: Thorax: Chest General
- Findings:
- Poor contrast enhancement.
- Chest
- Innumerable tiny foci in "tree-in-bud" appearance throughout with small focal opacities
- predominantly at the apices suggestive of early granulomatous formation. Features highly suspicious
- for miliary TB.
- There are no pleural effusions. The central airways appear midline and clear. No size significant
- lymph nodes and no masses noted in the hila or bilateral axilla. Mediastinal lymphadenopathy.
- The thyroid gland appears normal in size and attenuation.

- Abdomen / Pelvis
- Mild to moderate abdominopelvic free fluid without pneumoperitoneum.
- Significant and extensive mesenteric lymphadenopathy largest measures up to 1.7 cm with areas of central hypoenhancement suggestive of necrosis. Matted para-aortic lymph nodes noted with no significant pelvic lymph nodes appreciated.
- Splenomegaly, Volume: 1140cc. |Index: 1913.
- Hepatomegaly, liver span 20.0 cm. No biliary duct dilatation.
- The gallbladder, pancreas, kidneys, adrenal glands, urinary bladder, IVC and aorta are unremarkable.
- Significant pericholecystic fluid without inflammatory features. Small uncomplicated umbilical hernia with fat.

- No hydronephrosis or urolithiasis. The unprepared bowels are unremarkable. The visualised bones
- are unremarkable. Generalized subcutaneous oedema consistent with anasarca.

- Impression on Radiological investigation:
- Pulmonary features of infective/inflammatory aetiology, consider pulmonary TB, fungal infection or possible miliary metastases.
- Hepatosplenomegaly with extensive mesenteric and retroperitoneal lymphadenopathy, in-keeping with miliary TB, however myeloproliferative disorder and a fungal aetiology cannot be definitively ruled-out.
- Ascites with anasarca.

TEST	04-May	03-May	02-May	01-May	30-Apr	29-Apr	28-Apr	27-Apr	26-Apr	25-Apr	24-Apr
WBC	2.64				2.28			3.95	2.58	3.24	3
HB	102				95			126	105	132	129
PLT	83				86			137	97	86	102
BUN	13.5				13.1			18.4		33	21.1
CR	0.6				0.6			0.8		1.1	0.9
AST					116			256		186	254.7
ALT					64			121		99	116
GGT					566			826		767	
ALP					651			826		808	
ALB					2.42			2.83		3.32	
LDH									527		
ESR									14		
CRP					45.05			87.41	63.75		
C3					162 (90-180)						
C4					43 (10 - 40)						
IDCT									NEGATIVE		