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Case Report

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Imaging of Diffuse B Cell Large Lymphoma in Liver, Kidneys, Pancreas and Myocardium in a Case Report

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1. Case Report

A 41-year old man was transferred to our Infectious Diseases Unit with a history of three weeks of fever, abdominal pain, nausea, vomiting and weight loss. He was HIV positive since 2013 but discontinued antiretroviral therapy in 2019. At admission he was afebrile, with haemoglobin level of 12.8 g/dL, leucocytes 4,340 cells/mm³, platelets 237,000 cells/mm³, reative C protein 14.1 mg/dL, urea 48 mg/dL, creatinin 0.98 mg/dL, normal electrolytes, AST 90 U/mL, ALT 126 U/mL, total bilirrubin 0.75 mg/dL, albumin 3.5 g/dL, DHL 344 U/L, ferritin 914 ng/mL, uric acid 8.5 mg/dL, CD4 74 cells/mm³ (11%) and HIV viral load 111,000 copies/mm³. His physical exam was unremarkable, except for hepatosplenomegaly. Computer tomography (CT) showed multiple well-defined hypovascular nodules in liver and kidneys, a large hypovascular and infiltrative mass in pancreas and sparse small hypovascular and infiltrative nodules in myocardium (Figure 1). Transthoracic echocardiogram (TTE) showed multiple hypoechoic nodules in the latero-inferior wall and in the interventricular septum, causing an increase in the left ventricular walls thickness, and an isoechoic nodule in the right ventricular outflow tract, causing mild flow obstruction (Figure 2). Infectious diseases investigation included cryptococcal serum antigen, histoplasma urinary antigen, sputum culture for mycobacteria, hidatidosis serology and blood cultures, all negatives. Hepatitis B serology was positive only for total anti-HBc, and HBV PCR was negative. Antirretroviral was restarted with tenofovir, lamivudine and dolutegravir. An ultrasound guided hepatic biopsy demonstrated diffuse B cell large lymphoma. Unfortunately, his condition rapidly deteriorated and he died before starting chemotherapy.

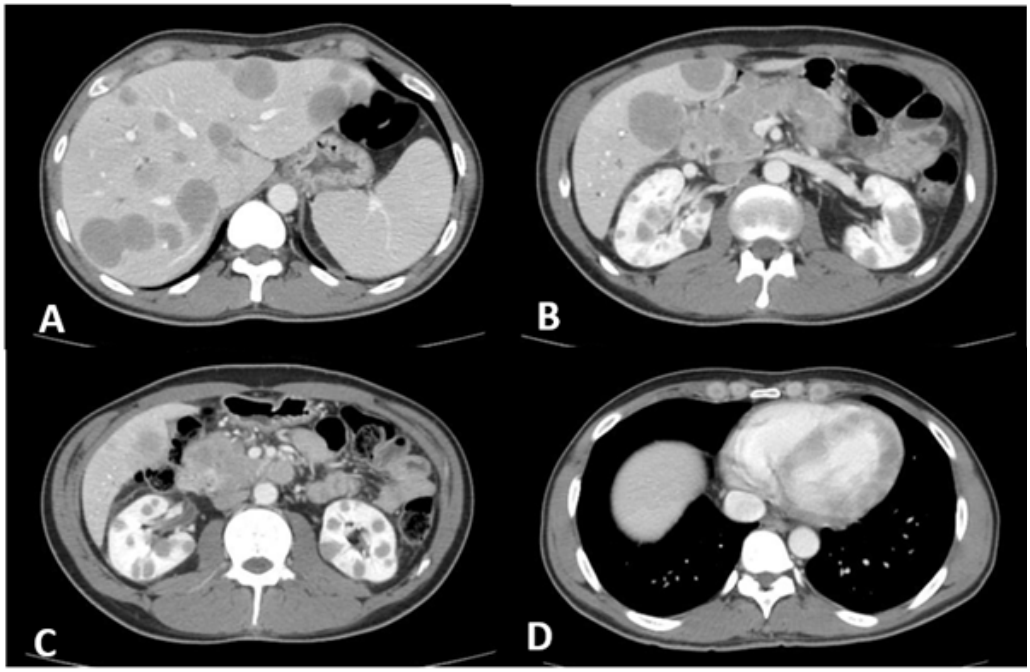

Figure 1: Contrast-enhanced CT images in portal phase. A. Multiple well-delimited hypovascular hepatic nodules. Some nodules are associated with intrahepatic bile duct dilatation; B and C. Multiple bilateral hypovascular renal nodules. Infiltrative soft-tissue pancreatic mass with main pancreatic duct dilatation; D. Infiltrative nodules in the interventricular septum e left ventricular myocardial wall.

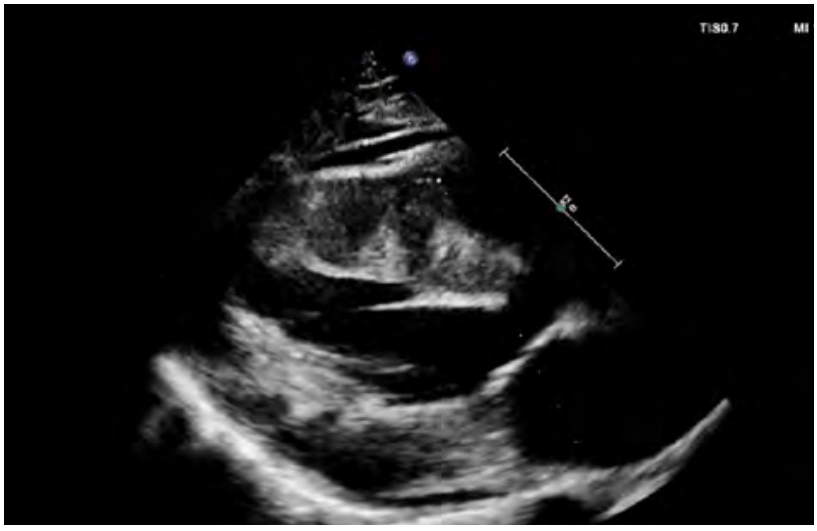

Figure 2: Two-dimensional transthoracic echocardiogram on longitudinal parasternal view depicting multiple hypoechoic nodules in the latero-inferior wall and in the interventricular septum causing an increase in the left ventricular walls thickness.

2. Discussion

The spectrum of opportunistic diseases in advanced HIV is extensive, and there is an increased risk of neoplasms. Given the patient's clinical presentation and our local epidemiological context, the primary differential diagnoses included tuberculosis, disseminated histoplasmosis, cryptococcosis, and non-Hodgkin lymphoma. Our patient's CT showed a disseminated disease, with multiple well-defined solid lesions affecting liver, kidneys, pancreas and heart. Also, the TTE showed a cystic pattern in myocardium. It was difficult to formulate a strong hypothesis, even more because the patient's blood tests were almost normal. High level of ferritin is non-specific, but hyperuricemia highlights neoplasm. Although lymphoma became our main hypothesis, the presentation was atypical, with no lesions in spleen nor lymph nodes enlargement. Searching for similar images led us to several differential diagnoses. A case of angiosarcoma presented similar low-attenuation lesions throughout the liver, but also a large spleen lesion [1]. Eshiwe at al. described a case of disseminated tuberculosis in an immunocompetent woman with multiple hepatic lesions suggestive of abscesses, in addition to other lesions in lungs and pericardial effusion [2]. A review of concurrent hepatic and spleen lesions described cases of melanoma, disseminated candidiasis, sarcoidosis and lymphoma, not like our patient [3]. Another review of periportal pathologies showed a very similar hepatic lesions from a

woman with lymphoma, but it was limited to describing only liver lesions [4]. Kidney spread of lymphoma is common and the image finding in most cases is multiple solid parenchymal masses [5]. Kidney abscesses, pyelonephritis and IgG4 disease can present similar pattern on CT, but the clinical history and physical exam usually help in the differentialdiagnosis. Particularly, we do not recall a myocardium involvement like this case. On CT the image was poorly delimited, suggestive of an infiltrative disease, but on TTE the lesions were well delimited with cystic aspect. Looking exclusively at the TTE we thought about hydatidosis, but the abdominal lesions were not consistent with this diagnosis. After confirmation of lymphoma we postulated that this pattern of hypoechogenic nodules could be lymphomatous granulomas. Ideally we should have performed a necropsy for better elucidation if we had the resource.

3. Conclusion

HIV patients with multiple abdominal solid lesions should always have the suspicion of lymphoma, even in the absence of lymph nodes involvement. Multiple hypoechogenic myocardial lesions should rise the suspicion of a granulomatous disease.

References

1. Krol J J, Krol V V, Dawkins A, Ganesh H S. Primary Splenic Angiosarcoma. Radiology. 2015; 274:1.
2. Eshiwe C, Shahi F, Gordon N, Lillie P. Rare and unusual case of hepatic and disseminated tuberculosis in an immunocompetent patient. BMJ Case Rep. 2019; 12: e229384.
3. Bean M J, Horton K M, Fishman E K. Concurrent Focal Hepatic and Splenic Lesions A Pictorial Guide to Differential Diagnosis. Journal of Computer Assisted Tomography. 2004; 28: 605–12.
4. Karcaaltincaba M, Haliloglu M, Akpinar E, Akata D, Ozmen M, Ariyurek M, et al. Multidetector CT and MRI findings in periportal space pathologies. Eur J Radiol. 2007; 61: 3–10.
5. Nguyen T, Gupta A, Bhatt S. Multimodality imaging of renal lymphoma and its mimics. Insights imaging. 2022; 13: 131-45.