

An Unexpected Case of Hepatocellular Carcinoma

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BACKGROUND:

- Hepatocellular Carcinoma (HCC) is responsible for the 4th highest number of cancer-related deaths worldwide.¹
- More than 1/3 of the more than 1 million annual deaths related to viral hepatitis worldwide are due to HCC.²
- The prevalence of HCC among HIV-infected patients coinfecting with hepatitis C virus (HCV) is rising.³
- HCC is an emerging cause of liver-related death among persons living with HIV.⁴
- HCC surveillance with imaging is recommended every 6 months in adult patients with cirrhosis from any cause.⁵
- It is controversial whether HCC surveillance is recommended for patients with advanced fibrosis (stage F3) and no cirrhosis due to HCV.⁵
- Eradication of HCV with direct-acting antiviral (DAA) therapy dramatically reduces the risk of HCC but the risk remains elevated for many years in patients with baseline cirrhosis and also in patients without cirrhosis but high pre-sustained viral response (SVR) fibrosis scores especially if the score remains high after SVR.⁶

PRESENTATION OF CASE:

A 67-year-old man presented to the clinic complaining of two weeks of constipation associated with nausea, abdominal pain, anorexia and weight loss. He had been diagnosed with HIV and HCV in the 1980s. His HCV was eradicated with interferon-based therapy that he received while incarcerated 15 years before presentation. A year prior to his HCV treatment a liver biopsy was performed demonstrating advanced fibrosis (stage F3). His other medical history included a diagnosis of emphysema, benign prostatic hyperplasia and essential hypertension. Medications included bicitgravir-emtricitabine-tenofovir alafenamide, tamsulosin, olmesartan and albuterol. The patient was a retired car rideshare service driver and lived with his wife and two grandchildren in San Diego. He previously injected heroin but had quit 14 years earlier. He quit smoking cigarettes 11 years earlier. He did not drink alcohol. On examination, the vital signs were normal and the body-mass index was 27.2. The weight was 17 pounds less than it was one year earlier in the clinic. The abdomen was tender to palpation over the right upper quadrant. The remainder of the exam was normal. Laboratory evaluation revealed a blood calcium level of 11.2 mg/dL (reference range, 8.5-10.6 mg/dL), HCV RNA not detected, alpha fetoprotein 1328 ng/mL (reference range, 0.0 – 8.3 ng/mL), CD4+ T-cell 394 cells/uL and HIV-1 RNA detected <20 copies/mL. Computed tomography (CT) of the abdomen and pelvis revealed innumerable heterogeneous liver lesions in both lobes, the largest measuring 12 cm (Fig. 1A). A large lymph node conglomerate measuring up to 10 cm encasing the portal vein and celiac artery was also demonstrated (Fig. 1B). A biopsy of one of the liver masses showed moderately differentiated hepatocellular carcinoma with background fibrosis (Fig. 2A and 2B). He met with an oncologist who discussed therapy with lenvatinib but the patient opted for palliative care and died three days later and 44 days after his initial presentation.

DIAGNOSTIC STUDIES

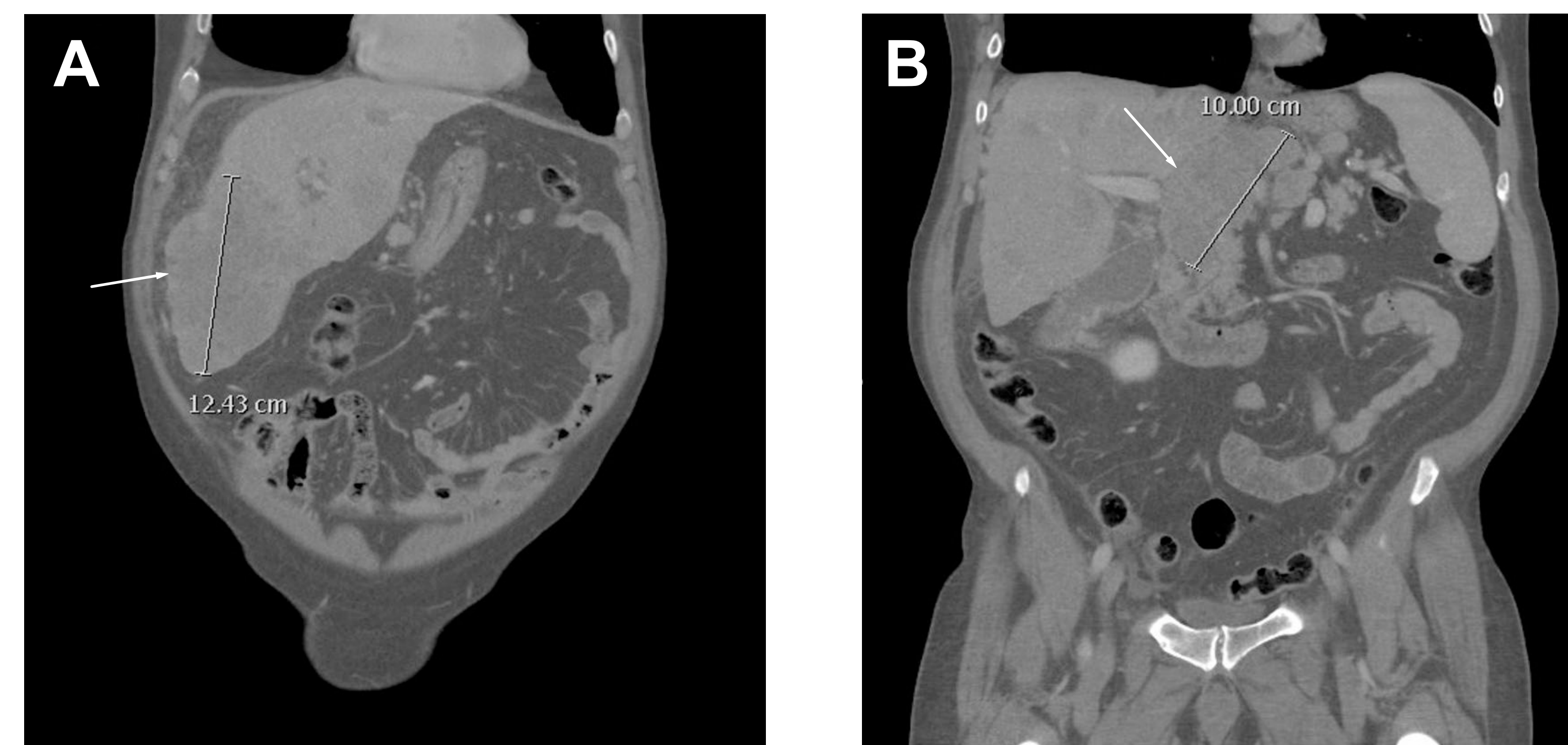


Figure 1. CT Scan of the Abdomen and Pelvis
Panel A shows innumerable heterogeneous liver lesions in both lobes, the largest measuring 12 cm in the right lobe (arrow). Panel B shows a large lymph node conglomerate measuring up to 10 cm encasing the portal vein and celiac artery (arrow).

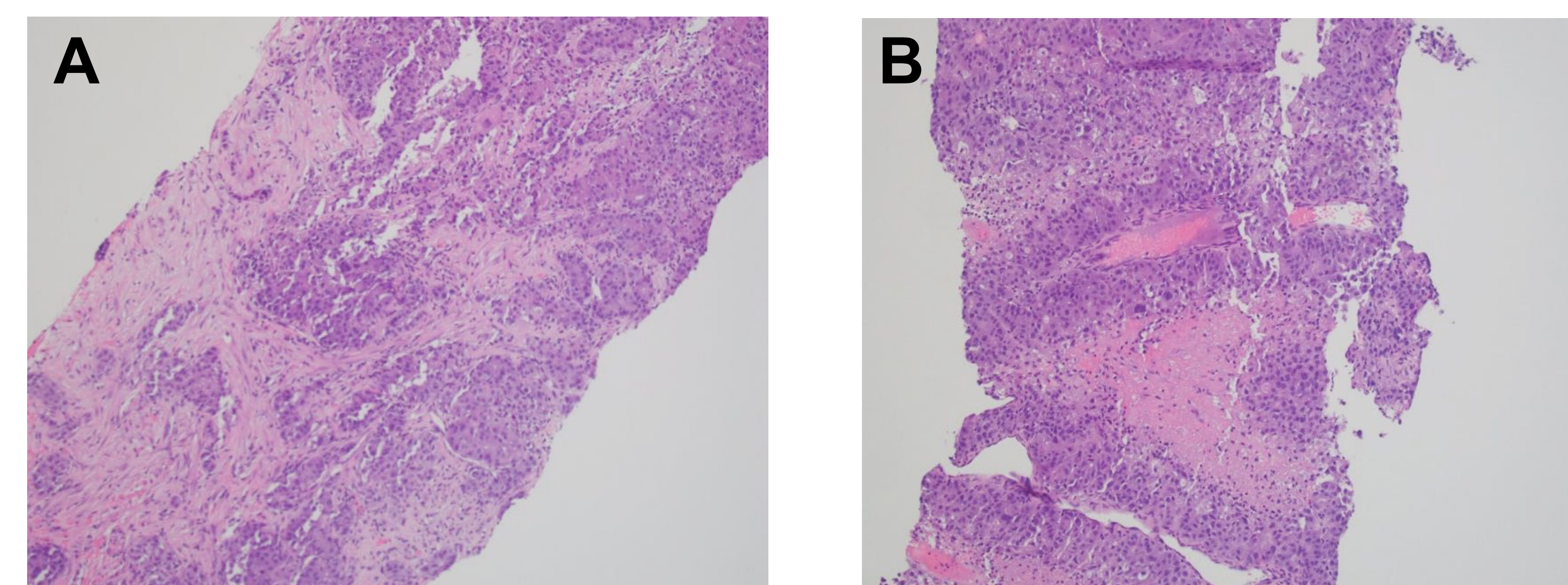


Figure 2. Core Biopsy Specimen of the Liver Mass
Hematoxylin and eosin staining shows moderately differentiated hepatocellular carcinoma with background fibrosis (Panels A and B).

DISCUSSION:

- A diagnosis of HCC was made in a HIV-infected man with history of advanced liver fibrosis in the absence of cirrhosis 15 years after HCV had been successfully treated.
- Surveillance for HCC was not performed in the 10 years before his diagnosis of HCC and his fibrosis stage was never reassessed with either serologic testing or transient elastography after his sustained viral response to help determine his ongoing risk for HCC.

CONCLUSION:

- This case highlights the importance of continued HCC surveillance in persons living with HIV who have a history of HCV-related advanced liver fibrosis without cirrhosis particularly in those whose fibrosis does not improve after SVR achievement.

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