Case Report

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Hepatocellular Carcinoma during HIV/HBV Co-Infection

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Abstract

HIV/HBV Co-infection constitute a public health problem in sub-Saharan Africa. Its prognosis is high because of late diagnosis. We are reporting a case of HIV/HBV co-infection detected at the stage of hepatocellular carcinoma with the aim of contributing to a better care for cases of HBV and HIV co-infection. This is about a 43 year-old adult co-infected with HBV and HIV-1. Upon admission into the Department of Infectious Diseases, the review noted a maintained general condition, an icteric conjunctiva, a conjunctival pallor, a weight equal to 60 kg, there was neither dehydration, any hepato splenomegaly or collateral venous circulation. Laboratory tests showed moderate immunosuppression (CD4 = 260/mm^3), moderate anemia (Hb rate = 11, 4 g/dl), thrombocytopenia (platelets = 127 000 /mm^3), high alpha fetoproteins (1800 U/ml), on fibrotest the fibrosis score was equal to 0.9 and the activity score to 0.9; Gamma GT = 91 U/l, total Bilirubin = 81.11 micromol/l (N <25.7), a prothrombin rate = 71.70% (N = 70-100), IgM antiHBc = negative. Hepatic ultrasound objectified appearance compatible with cirrhosis. The diagnosis is a post viral hepatitis B hepatocellular carcinoma complicating cirrhosis.

HBV/HIV co-infection is serious because of the rapid progression to cirrhosis and hepatocellular carcinoma. Routine screening of viral hepatitis B which is an AIDS marker in HIV-positive people will allow a holistic medical care, necessary to prevent hepatocellular carcinoma

Keywords: Carcinoma, HIV, HBV coinfection

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Introduction

Viral hepatitis B is one of the most common and serious infectious diseases in the world. It is the most common cause of cirrhosis and liver cancer [1]. About 2 billion people worldwide are infected with HBV, 400 million of whom are chronic carriers of HBsAg with 620,000 deaths per year due to this infection [2]. Clinically, infection with hepatitis B Virus can manifest by a pre-icteric phase associating a low-grade fever, asthenia, nausea, arthralgia and urticaria followed by an icteric phase [2,3]. HBV/HIV Co-infection is a public health problem in sub-Saharan Africa [1,4]. Over 7% of HIV/HBV co-infected patients are at higher risk of progression to fibrosis and hepatocellular carcinoma [5,6]. Viral hepatitis B is the leading cause of death for hepatocellular carcinoma [2]. It is responsible for 5 to 10% of the causes of liver transplantation in France [2] and 15% of deaths among PLWHIV in Europe [7]. In Burkina Faso, the prognosis of HBV/HIV co-infection is more severe, due to an often late diagnosis of viral infection B [4]. We are report a case of HIV/HBV co-infection detected at the stage of hepatocellular carcinoma in order to describe the clinical and therapeutic features.

Observation

A 43 year old-patient carrying HBsAg of recent discovery is detected HIV-1 at the waning of multiple episodes of illness. He was referred to the Department of Infectious Diseases of the Yalgado Ouédraogo hospital center (CHU YO) for support. On admission, the review noted a general maintained condition, icteric conjunctiva, conjunctival pallor, weight of 60 kg, there was neither no dehydration wrinkles, any hepato splenomegaly, or collateral venous circulation.

The requested record is returned with the blood count of white blood cells to 6600/mm^3, a hemoglobin level = 11.4 g/dl, platelets

= 127,000 /mm^3, dosage of CD4 T lymphocytes = 260 cells/ microliter, biochemistry noted creatinine = 129.8 micromol/L, ALT = 30 Ul/L, AST = 126 UI.l and serum calcium = 1.79 mmol/l. Antiretroviral therapy was instituted with ABC + 3TC + EFV then adjusted on January 15, 2015 with Atripla after recovery of renal function (creatinine = 93.3 micromol/l). On 19 February 2015 he was admitted again for headache, hyperthermia (38.8°C) and epistaxis. The requested additional record brought Ac anti HBc (IgM) = negative. The anti HBe, HBeAg and HBV DNA were not made by lack of funds. The hemoglobin level showed a moderate anemia to 10.8 g/dl, thrombocytopenia at 68 000/mm^3, creatinine = 78.11 micromol/L, ALT = 39.47 = 2.09 and serum calcium, the GGT = 91 U/L (N = 11 to 50), total Bilirubin = 81.11 micromol/l (N < 25.7) Conjugated bilirubin = 8.73 micromol/l (N < 5), Alpha feto protein = 1800 U/ml (N < 10), on fibrotest the fibrosis score was equal to 0.9 and the activity score to 0.9; prothrombin rate was 71.70% (N = 70-100), the INR 1.28. Hepatic ultrasound objectified hepatic appearance compatible with liver cirrhosis without scalable allure injury and homogeneous splenomegaly. He was hospitalized and received a transfusion of platelet concentrate. The diagnosis agreed on is post viral hepatitis B hepatocellular carcinoma that occurred in a recently discovered HIV Patient.

Discussion

HIV/HBV Co-infection constitute a public health problem [4] because of the high risk of severe liver damage. This damage goes from chronic hepatitis to hepatocellular carcinoma through cirrhosis. But this evolutionary chronology is not always found in hepatitis B virus since the virus has a direct oncogene power on hepatocytes [6]. Indeed carcinomatous degeneration is consecutive to the phenomena of integration of the viral DNA in liver cells leading to mutations of genes that promote cancer [8]. Hepatocellular carcinoma is almost always associated with chronic hepatitis of the liver, most often having reached the stage of cirrhosis at the moment of diagnosis of cancer [6]. The factors promoting liver fibrosis are excessive alcohol consumption, the existence of metabolic syndrome and co-infection with HIV/HBV [3,9]. The HIV infection worsens the prognosis of hepatitis B virus with a more rapid progression to cirrhosis and hepatocellular carcinoma [10]. The risk shifting to chronicity of hepatitis B virus is 20 to 100% in immunocompromised patients [2].

Many antiviral drugs are active against HBV. But in Burkina Faso, if some of them are available in the context of HIV, they are not for HBV. The difficulties of the management of co-infection are also linked to the limits of the grant for ARVs which take into account only two drugs active on B virus (tenofovir and lamivudine) as part of antiretroviral therapy [4].

Conclusion

HIV/HBV co-infection is serious because of its potential for rapid progression to cirrhosis and hepatocellular carcinoma. Its diagnosis is often made at a late stage in our context at a time when medical treatment is not enough. Routine screening of viral hepatitis B marker in HIV positive will allow early and holistic care, necessary to prevent hepatocellular carcinoma.

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