

Case Report

Hepatitis B Virus Reactivation In A Patient Treated with Alectinib

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1. Background

Alectinib 600 mg twice daily is the first-line treatment for advanced lung adenocarcinoma with ALK gene rearrangement [1]. Elevation of liver enzymes up to acute hepatitis is a known side effect of the drug [2]. Here, we report a case of hepatitis B virus reactivation in a patient treated with alectinib.

2. Case Report

A 50-year-old man was hospitalized for left hemiplegia on day 1. The radiological assessment revealed a pulmonary mass in the left lower lobe along with secondary brain and kidney lesions. Biopsies showed an adenocarcinoma of the lung with ALK gene rearrangement. Treatment with alectinib was initiated on day 131. After two months of treatment, there was a near-complete regression of neurological disorders and the radiological reassessment showed a partial response based on RECIST criteria. The patient was readmitted to hospital on day 208 (two and a half months after the start of treatment) following the appearance of grade 3 cytotoxicity. Liver ultrasound did not reveal any abnormalities. Treatment with alectinib was discontinued based on current recommendations. Despite discontinuation of treatment, the hepatic assessment showed grade 4 cytotoxicity in association with cholestasis and an increase in conjugated bilirubin (aspartate aminotransferase 16N, alanine aminotransferase 19N, gamma-glutamyltranspeptidase 3N, slightly increased alkaline phosphatase, and conjugated bilirubin 2N). Pre-therapy assessment showed positive hepatitis B serology with positive anti-HBc Ac and HBsAg, but revealed no hepatic abnormalities. The hepatitis B viral load was assessed and was found to be very high (3.56×10^7 IU/ml). Treatment with tenofovir was initiated.

3. Discussion

Several cases of hepatitis B virus reactivation due to the introduction of immunosuppressive treatment such as rituximab have been described in the literature [3]. The treatment decision is based on risk stratification. In view of this, many health institutions recommend routine HBsAg and anti-HBc Ac screening before the introduction of immunosuppressive or cytotoxic treatment [4]. To date, no case of hepatitis B virus reactivation has been reported in patients receiving targeted therapy, including alectinib. The present case suggests the need for routine hepatitis B screening before the introduction of alectinib treatment and for prophylactic antiviral treatment in patients with non-active chronic hepatitis B.

References

1. Solange Peters, D Ross Camidge, Alice T Shaw, et al. Alectinib versus Crizotinib in Untreated ALK-Positive Non–Small-Cell Lung Cancer. *N Engl J Med* 377 (2017): 829-838.
2. Viola W Zhu, Yuxin Lu, Sai-Hong Ignatius Ou. Severe Acute Hepatitis in a Patient Receiving Alectinib for ALK-Positive Non–Small-Cell Lung Cancer: Histologic Analysis. *Clin Lung Cancer* 20 (2019): e77-e80.
3. Nicolas Goossens, Francesco Negro. Reactivation of hepatitis B during immunosuppression. *Rev Med Suisse* 9 (2013): 1566-1571.
4. Myint A, Tong MJ, Beaven SW. Reactivation of Hepatitis B Virus: A Review of Clinical Guidelines. *Clin Liver Dis (Hoboken)* 15 (2020): 162-167.

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