P-041

A case with chronic HBV infection who was non-responder to nucleos(t)ide analogues was treated with Pegylated interferon

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INTRODUCTION: Pegylated interferon (Peg-IFN) and nucleos(t)ide analouges (NAs) are potential treatment options for chronic hepatitis B patients (CHB). Treatment response to NAs therapy is defined as an HBV DNA that cannot be detected by real-time polymerase chain reaction. Intermittent or persistent quantifiable HBV DNA levels were known to be the cause of hepatocellular carcinoma even in under NAs treatment. Primary non-response is defined as <1 log10 decrease in HBV DNA after 3 months.

CASE REPORT: In 2011, a 17-year-old Turkish girl who was diagnosed with CHB five years ago was admitted to our outpatient clinic. She had no co-morbidities and co-infections. Her hepatic activity index (HAI) was 8 fibrosis stage was 2 by Ishak five years ago. She had been treatment-experienced with LAM for five years. Her annually HBV DNA values between 2006 and 2011 were 6200, 7600, 2600, 10, 10 IU/ml, and ALT levels were 28, 14, 15, 12,13 IU/L, respectively. They are shown in Figure 1. Compliance of the patient to treatment was questioned in detail and treatment incompatibility was not detected. The plasma sample was sent to Kocaeli University for HBV drug resistance testing. Amino acid substitution of rtQ149K (compensation related to LAM/LdT/ADV) was detected in her test and hepatitis B genotype/subgenotype was D1. The treatment of the patient was changed to TDF in 2011. The patient's viremia was persistent, sometimes isolated blips were seen for the next two years. Two years later ETV 0,5 mg was added to her treatment in 2013. HBV DNA levels were detected in different levels in every visit. Fluctuations in HBV DNA levels were observed for 3 years. After 3 years her therapy was changed to TDF and ETV 1 mg in 2016. In 2017, liver biopsy was repeated to assess the liver status due to the viremia was still present. Her HAI was 9 fibrosis stage was 2 by Ishak (Figure 2). Peg-IFN alfa 2b was started to her. The HBsAg quantation was detected 1807 IU/mL before the Peg-IFN treatment. At thirth month of the therapy her HBV DNA was 17 IU/ml and HBsAg quantation was 719 IU/mL. The treatment was scheduled for 48 weeks. Six months after the end of Peg-IFN therapy, liver biopsy was performed and her HAI was 7 fibrosis stage was 2 by Ishak (Figure 3). Twelve months after the end of Peg-IFN therapy, HBV DNA level was detected 335 IU/ml.

DISCUSSION: Our patient was one of the rare cases that did not respond to LAM, ETV and TDF. In such cases, rescue therapy usually requires combination therapy with a nucleoside and nucleotide. There had not been any regression in fibrosis in the liver in our patient with NAs treatment. The histological response was seen besides the virological response to Peg-IFN therapy. There have been no study analyzing the efficacy of switching to Peg-IFN monotherapy in patients with CHB in long-term NA therapy. Our case can be a sample for the clinicians who are follow up the patients with CHB.

Keywords: Chronic hepatitis B, peginterferon, nucleoside/nucleotide analogues

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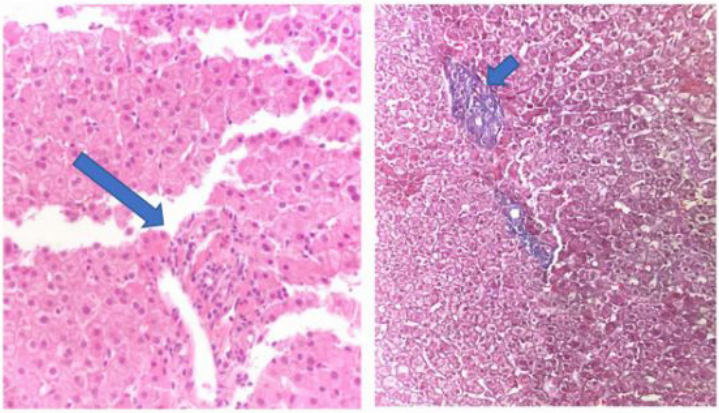
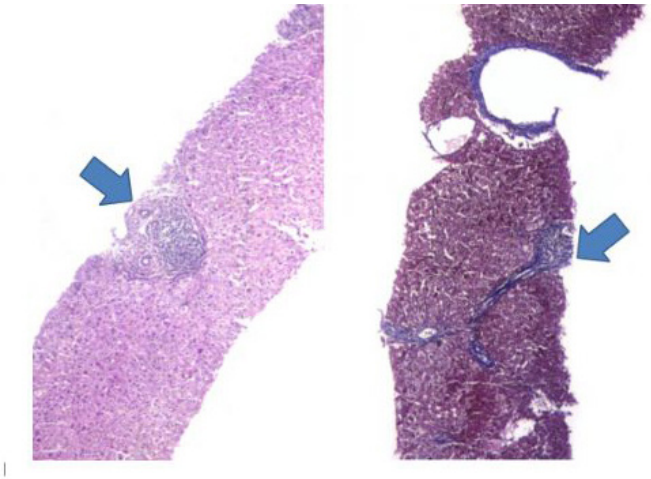
Biopsy findings after therapy.



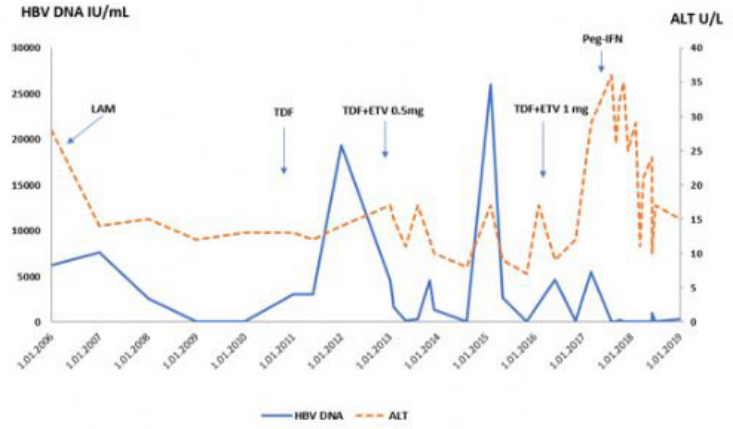
a: The regression of portal inflammation and interface hepatitis (hematoxylin and eosin, X 400), b: Portal areas (arrow) are still moderately enlarged by fibrosis (masson thrichrome , X 400)

Biopsy findings in the first evalutaion.



a: Moderate mononuclear inflammatory cells in all portal areas (arrow) (H&E, x 40) b: M of portal areas (arrow) are moderately enlarged by fibrosis (Masson Thrichrome staining x 40)

Clinical course of case



LAM: lamivudin, TDF: tenofovir disoproxil fumarate, ETV: entecavir, Peg-IFN: pegylated interferon, ALT: alanine aminotransferase