Background and aim: Hepatitis B virus (HBV) carriers who receive chemotherapy for cancer are at high risk of HBV reactivation and a prophylaxis with antiviral drugs is recommended in such patients. The aim of the study was to assess the efficacy and safety of a definite prophylaxis with Entecavir (ETV) in inactive HBV carriers underwent chemotherapy for solid or haematological cancer.

Patients and methods: In this open cohort study were included inactive HBV carriers (normal ALT, serum HBV-DNA < 2,000 IU/mL, absence of liver disease) who received the first line of chemotherapy because of cancer. All patients received 0.5 mg/daily of Entecavir from the start to six months after the discontinuation of chemotherapy. Serum HBV-DNA and ALT levels were measured every 12 weeks and an increase of serum HBV-DNA above 2,000 IU/mL was considered as HBV reactivation.

Results: From June 2009 to October 2012, we included 36 patients (24 males, median age 60 years, range 21-82). Eighteen patients had a solid cancer (9 gastrointestinal, 6 lung and 3 breast tumors) and 18 patients had haematological cancer (3 leukemia, 10 non Hodgkin lymphoma, 2 Hodgkin lymphoma, 3 myeloma). Twenty-nine patients (80%) received corticosteroids and 12 out of 18 patients with haematological cancer received Rituxamab. At baseline, the median values of ALT were 32 IU/mL and the median of serum HBV-DNA level were 345 IU/mL.

During the observation (median 12 months, range 2-21) were not observed reactivations of HBV, and therapy with ETV was not interrupted in any patient because of adverse events.

Conclusion: Our study confirm that prophylaxis with Entecavir is effectiveness in patients receiving anti-cancer chemotherapy, even in patients who have profound immununosuppression because receive Rituxamab in their therapeutic schedule.