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HBV reactivation after immunosuppressive therapy: an open question

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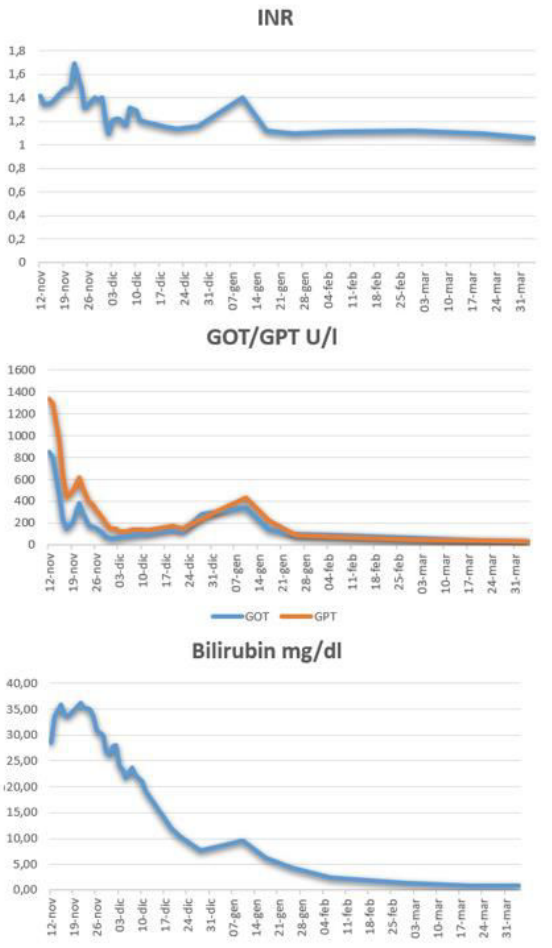
Case report

- We present a case of a 71-year-old man with a reactivation of HBV infection after immunosuppressive therapy.
- He had a diagnosis of gastric maltoma (June 2021) treated with 4 cycles of R-COMP (July– November 2021).
- Before the chemotherapy he had been diagnosed with latent HBV infection with negative HBsAg, positive HBcAb and negative HBV-DNA and started prophylaxis with lamivudine. In June 2023, the prophylaxis was discontinued after > 12 months of clinical, radiological and histological remission of the gastric maltoma and HBsAb seroconversion (> 50 mIU/ml).
- In August 2023 he was treated with high dose prednisone for 2 weeks for a symptomatic SARS-CoV-2 infection.
- After a couple of months, he began to show signs and symptoms of hepatic failure (asthenia, jaundice, acholic feces, hyperchromic urine), presented to the E.R and was admitted to our Ward.
- His laboratory exams showed hepatic failure (bilirubin t/d 28/24 mg/dl , GOT/GPT 800/1300 U/L , platelets 109000, INR 1,43, albumin 3.7 g/dl. CRP 0.94 mg/dl) and his vital signs were PAO 110/80 mmHg, FC 83 bpm, sO2 97%, FR 15 bpm, TC 38° C. He had no significative radiological findings at the CT scan and US.
- His serological status was HCV Ab negative, HAV IgM negative/IgG positive, HBsAg positive, HBcAb IgM positive, HBeAg positive, HBV-DNA 9369984 IU/ml, negative HDV Ab and HDV-RNA and was immediately started on tenofovir disoproxil fumarate. In the following days, his liver function exams progressively worsened with total bilirubin of 36.8, platelets 56000 and INR 1.69 with a maximum MELD score of 30, but a transplant specialist consult excluded the need for urgent liver transplant.
- After one month he was discharged and the follow up continued as an outpatient. His liver function exams showed a slow but progressive improvement until the complete normalization at the 5 months-follow up visit: GOT/GPT 32/30 UL, total bilirubin 0.85 mg/dl, INR 1.09, PLT 99000, negative HBsAg, HBV-DNA (< 20 UI/ml), HBsAb 6.56 mIU/ml.



INR, GOT/GPT and bilirubin follow up during the hospital stay and in the oupatient clinic until normalization

Discussion and conclusions

- Screening for HBV serological status is mandatory for all patients that undergo to immunosuppressive therapy and in some cases the antiviral prophylaxis is recommended. In our case the risk of reactivation of HBV infection at the screening time was high and our patient received the prophylaxis for > 12 months after the discontinuation of the chemotherapy. However, the choice of the appropriate type of the prophylaxis and the timing of its discontinuation should be evaluated according to the reactivation risk stratification (at least 18 months after discontinuation of rituximab-based regimens).
- Presumably, the reactivation of HBV in our patient was triggered by the high dose corticosteroids treatment for SARS-CoV-2 infection even if with his serological status and this kind of therapy should be considered at low risk (<1%).

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