

Letter to the Editor

Chemotherapy and occult reactivation of HBV in hemodialysis patients[☆]

Quimioterapia y reactivación oculta del VHB en pacientes de hemodiálisis

Dear Editor,

The guidelines on viral diseases of the Spanish Society of Nephrology indicate isolation measures for patients on haemodialysis (HD) with hepatitis B (HBV) infection.¹ These measures, together with strict compliance with universal precautions and with vaccination, have helped to reduce the prevalence of chronic HBV infection.² In patients on HD with or without immunosuppressive treatment, cases of HBV reactivation³⁻⁶ and of occult HBV infection (OBI)⁷⁻⁹ have been described. The latter is characterised by the presence of the viral genome in serum and/or hepatic tissue without detection of HBsAg. The clinical significance of OBI is not clear: patients may reactivate the virus with the ensuing potential risk of contagion. The prevalence of OBI in HD is unknown, and highly variable figures (0%–58%) have been reported.¹⁰

We would like to describe our experience in the detection of a case of OBI and an HBV reactivation in our hospital's haemodialysis unit, a referral centre for another four outpatient haemodialysis units.

Case 1. 60-year-old male with chronic kidney disease (CKD) secondary to nephroangiosclerosis on HD since 2014 and diagnosed with pulmonary carcinoma in October 2015. Before initiating chemotherapy (CT), the Oncology Department requested HBV DNA. His previous serologies with several determinations were HbCAb-positive and HBsAg-negative. The HbCAb-values had ranged between 9.6 and 17.4 mIU/L since he started HD. HBV DNA <20 IU/mL was detected by means of real-time polymerase chain reaction (Roche COBAS Ampliprep/COBAS TaqMan HBV v2.0). The Oncology Department referred the patient to the Gastroenterology Department, indicating antivirals, considering that there was a risk of reactivating the HBV through the CT. At his haemodialysis centre, there were doubts as to whether he should be isolated and he was therefore referred to our hospital unit. He was kept in isolation in the HBV room, without sharing either a shift or monitor with other HBsAg-positive patients until he completed the CT. After initiating treatment with entecavir, no viral load was detected. At the end of the CT, the antiviral and the isolation were maintained for a fur-

ther 6 months. He returned to his centre without any isolation measures.

Case 2. 81-year-old female patient with CKD of undetermined aetiology on HD since October 2011. In June that year, she was diagnosed with IgG kappa multiple myeloma and began treatment with bortezomib followed by lenalidomide. Both drugs were discontinued on account of the side effects, and she was started on dexamethasone, which was maintained for 6 years. In January 2017, she was started on bendamustine due to the progression of the disease. From September 2009, the patient tested HbCAb-positive in multiple serologies, although as of 2015 most of the determinations were negative, while always remaining HBsAb-positive in a range below 100 mIU/mL. She was always HBsAg-negative, and had only one HBV DNA-negative determination in 2016, coinciding with being anti-HbC-positive and as part of an OBI study. In September 2017, in her dialysis centre, the patient tested HBsAg-negative, HbCAb-negative, HBsAb14.4 mIU/mL, HCVAb-negative and HIVAb-negative. In October and November, the patient maintained normal transaminases. In November 2017, she was admitted to our hospital on account of a deterioration in her general condition and severe anaemia. We requested markers in the HD unit, which were HBsAg-positive. The seroconversion and positive HBV DNA were confirmed with a second analysis (2,343 IU/mL) with GOT 46 IU/L, GPT 20 IU/L, GGT 65 IU/L. The patient died in hospital. From the moment that we confirmed the seroconversion, she was switched to dialysis on monitor and HBV room, although previously she had shared a monitor and a room with other acute patients. DNA determination was performed in all of them, testing negative. The viral load was determined in the patients who had shared shifts and monitor at her regular centre in the last few months, with all of them testing negative. Subsequently, no seroconversion was detected at the patient's haemodialysis centre or in our hospital's haemodialysis unit.

Although the prevalence of HBV in patients on haemodialysis has diminished in recent years, the existence of OBI patients (HBsAg-negative) should lead us to remain vigilant for the risk of reactivation and possible contagions, particularly if they are receiving immunosuppressive treat-

DOI of original article:

<https://doi.org/10.1016/j.nefro.2019.06.007>.

[☆] Please cite this article as: Martín Hidalgo-Barquero MV, Ruiz-Calero Cendrero RM, Cancho Castellano B, Cid Parra MC, Galán González J. Quimioterapia y reactivación oculta del VHB en pacientes de hemodiálisis. *Nefrologia*. 2020;40:563-564.

ment. Isolation measures for patients with OBI have not been defined. In the first case, we decided to isolate the patient, although in subsequent cases in which we detected OBI without immunosuppressive treatment we did not instigate isolation measures. It is likely that the second case, prior to seroconversion, was an OBI case that went undetected, as no repeat viral load determinations were performed. This is why we believe that the periodic determination of DNA should be considered in patients with a past HBV infection, irrespective of the HBsAb, particularly if the patient is on suppressive treatment, with a view to preventing reactivation.

Funding

We declare that we received no funding for this article.

Conflicts of interest

The authors have no conflicts of interest to declare.

REFERENCES

- Barril G, González Parra E, Alcázar R, Arenas D, Campistol JM, Caramelo C, et al. Guías sobre enfermedades víricas en hemodiálisis (HD). *Nefrología*. 2004;24 Supl 2:43-66.
- García Aguado R, Rabinhb SA, Barril G, Proy B, Arias A, Herruzo JA, en nombre de todos los investigadores del estudio PIBHE. Estudio multicéntrico español PIBHE: prevalencia e inmunización de la infección crónica por el virus de la hepatitis B en pacientes en hemodiálisis en España. *Nefrología*. 2016;36:126-32.
- Rhea S, Moorman A, Pace R, Mobley V, MacFarquhar J, Robinson E, et al. Hepatitis B reverse seroconversion and transmission in a hemodialysis center: a public health investigation and case report. *Am J Kidney Dis*. 2016;68:292-5.
- Li Cavoli G, Li Destri N, Li Cavoli TV, Palmeri M, Servillo F, Rotolo U. HBV reactivation in a patient on chronic haemodialysis treatment. *CEN Case Rep*. 2015;4:246-7.
- Freudiger H, Sitavanc R. Reverse seroconversion of hepatitis B in a haemodialysis patient. *Nephrol Dial Transplant*. 2004;19:238-41.
- Hoofnagle Jay H. Reactivation of Hepatitis B. *Hepatology*. 2009;49:156-65.
- Raimondo G, Allain JP, Brunetto MR, Buendia MA, Chen DS, Colombo M, et al. Statements from the Taormina expert meeting on occult hepatitis B virus infection. *J Hepatol*. 2008;49:652-7.
- Kim SM, Kim HW, Lee JE, Lee EK, Shin HD, Song IH. Occult hepatitis B virus infection of hemodialysis patients: a cross-sectional study in a hepatitis B virus-endemic region. *Hemodial Int*. 2015;19:66-71.
- Fontenele AMM, Filho NS, Ferreira ASP. Occult hepatitis B in patients on hemodialysis: a review. *Ann Hepatol*. 2013;12:527-31.
- Goral V, Ozkul H, Tekes S, Sit D, Kadiroglu AK. Prevalence of occult HBV infection in haemodialysis patients with chronic HCV. *World J Gastroenterol*. 2006;7:3420-4.

María Victoria Martín Hidalgo-Barquero*, Rosa María Ruiz-Calero Cendrero, Bárbara Cancho Castellano, María Cruz Cid Parra, Josefa Galán González

Complejo Hospitalario Universitario de Badajoz, Badajoz, Spain

* Corresponding author.

E-mail address: vmartinh@senefro.org
(M.V. Martín Hidalgo-Barquero).

2013-2514/© 2019 Sociedad Española de Nefrología. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).
<https://doi.org/10.1016/j.nefro.2019.06.009>

Letter to the Editor

Thyroid plasmapheresis[☆]

Plasmaféresis tiroidea

Dear Editor:

Amiodarone-induced thyroiditis is a type of thyrotoxicosis that may appear in the context of the treatment of different tachyarrhythmias with this drug. We can distinguish

between two types: type 1 is an iodine-induced hyperthyroidism, whereas type 2 is a destructive thyroiditis.¹

The treatment of type I includes thioamides (methimazole and propylthiouracil). Other alternatives could be potassium perchlorate, lithium carbonate, iopanoic acid,

DOI of original article:

<https://doi.org/10.1016/j.nefro.2019.07.004>.

[☆] Please cite this article as: Rojo Álvaro J, Conchillo Fernández C, Agea Díaz L, Bilbao Garay I, García Delgado C, del Río JM, et al. Plasmaféresis tiroidea. *Nefrología*. 2020;40:565-566.