Saudi J Kidney Dis Transpl 2015;26(2):368-369 © 2015 Saudi Center for Organ Transplantation

# Saudi Journal of Kidney Diseases and Transplantation

### Letter to the Editor

## Occult Hepatitis C Virus Infection in Dialysis Patients: Does It Need Special Attention?

To the Editor,

We read with much interest the article by Dr. Khedmat and his colleagues entitled "Hepatitis C Virus Infection in Dialysis Patients" published in your prestigious journal. Diagnosis, course and especially treatment of acute and chronic types of hepatitis C virus (HCV) infections in dialysis patients were investigated in this review article. A new type of HCV infection, called occult hepatitis C infection (OCI), has been introduced in databases, and we would like to add some points about the existence of this type of infection in hemodialysis (HD) patients.

OCI is defined by the presence of HCV RNA in the hepatocytes without detectable serum anti-HCV antibodies and viral RNA by usual laboratory tests. When liver biopsy is not available for determining HCV-RNA in the hepatocytes (i.e., gold standard method for the diagnosis of OCI), detection of HCV-RNA in ultra-centrifuged serum and in peripheral blood mono-nuclear cells can be used as an alternative diagnostic technique.2 Minimal liver changes, liver cirrhosis and also liver carcinoma are the different reported effects of OCI on liver tissue. Until now, OCI has been reported in different groups such as family members of OCI patients, cryptogenic liver cases and even healthy people.<sup>2</sup>

There are also some reports of OCI in HD patients.<sup>4</sup> Barril et al, with evaluation of 109 HD patients with abnormal liver enzyme, revealed that prevalence of OCI may be high in

these patients. In addition, they showed that OCI can be a risk factor for mortality of HD patients.<sup>5</sup> It is also said that both occult and non-occult HCV infection are even more common than hepatitis B infection in HD patients.<sup>6,7</sup> In a recently published study, however, Baid-Agrawal et al reported that the prevalence of OCI is very low in chronic HD patients.<sup>8</sup>

These data recommend evaluation of OCI in HD patients as a screening method for improving the outcome of HD and kidney transplantation. However, it should be taken into account that data about the prevalence of OCI in HD patients and its treatment are limited. On the other hand, it is so clear that controlling HCV infection in HD units can improve the outcome of the HD and the kidney transplant patients. Therefore, further future clinical studies are still needed to clarify the effects of OCI on the HD patients.

**Conflict of interest:** None.

Dr. Mohammad Saeid Rezaee-Zavareh<sup>1,2</sup>,

Dr. Mahdi Ramezani-Binabaj<sup>1</sup>,

Dr. Behzad Einollahi<sup>3</sup>

<sup>1</sup>Students' Research Committee, Baqiyatallah University of Medical Science, <sup>2</sup>Middle East Liver Disease Center, Tehran, <sup>3</sup>Nephrology and Urology Research Center, Baqiyatallah University of Medical Sciences,

Tehran, IR Iran

E-mail: Ramezanimahdi70@gmail.com

Letter to the Editor 369

#### References

- 1. Khedmat H, Amini M, Ghamar-Chehreh ME, Agah S. Hepatitis C virus infection in dialysis patients. Saudi J Kidney Dis Transpl 2014; 25:1-8.
- 2. Bokharaei-Salim F, Keyvani H, Monavari SH, et al. Occult hepatitis C virus infection in Iranian patients with cryptogenic liver disease. J Med Virol 2011;83:989-95.
- Carreno V, Bartolome J, Castillo I, Quiroga JA. New perspectives in occult hepatitis C virus infection. World J Gastroenterol 2012; 18:2887-94.
- 4. Thongsawat S, Maneekarn N, Kuniholm MH, et al. Occult hepatitis C virus infection during an outbreak in a hemodialysis unit in Thailand. J Med Virol 2008;80:808-15.
- 5. Barril G, Castillo I, Arenas MD, et al. Occult

- hepatitis C virus infection among hemodialysis patients. J Am Soc Nephrol 2008;19:2288-92.
- 6. Yakaryilmaz F, Gurbuz OA, Guliter S, et al. Prevalence of occult hepatitis B and hepatitis C virus infections in Turkish hemodialysis patients. Ren Fail 2006;28:729-35.
- 7. Jain P, Nijhawan S. Occult hepatitis C virus infection is more common than hepatitis B infection in maintenance hemodialysis patients. World J Gastroenterol 2008;14:2288-9.
- 8. Baid-Agrawal S, Schindler R, Reinke P, et al. Prevalence of Occult Hepatitis C Infection in Chronic Hemodialysis and Kidney Transplant Patients. J Hepatol 2014;60:928-33.
- 9. Alavian SM. Diabetes, renal failure and hepatitis C infection: The puzzle should be attended more in future. Nephrol Urol Mon 2011;03:153-4.

# Author's Reply

Reply from the authors is awaited.