



## Author's Reply: Hepatitis E Virus Infection in Iranian Kidney-Transplant Patients

Zakieh Rostamzadeh Khameneh<sup>1</sup>, Nariman Sepehrvand<sup>1\*</sup>

<sup>1</sup> Department of Microbiology, Urmia University of Medical Sciences, Urmia, IR Iran

<sup>2</sup> National Institute of Health Research, Tehran University of Medical Sciences, Tehran, IR Iran

### ARTICLE INFO

#### Article type:

Letter to Editor

#### Article history:

Received: 16 Nov 2011

Revised: 26 Nov 2011

Accepted: 29 Nov 2011

#### Keywords:

Kidney Transplantation

Hepatitis E

Iran

#### ► Please cite this paper as:

Rostamzadeh Khameneh Z, Sepehrvand N. Author's Reply: Hepatitis E Virus Infection in Iranian Kidney-Transplant Patients. *Hepat Mon.* 2011;11(11):929-30. DOI: 10.5812/kowsar.1735143X.790

© 2011, BRCGL, Published by Kowsar M.P.Co. All rights reserved.

### Dear Editor,

On behalf of all of the coauthors, I would like to thank Dr. Kamar for his interest in our study. In the letter, Dr. Kamar summarized the most important findings on hepatitis E infection in organ transplant recipients (1), most of whom have relied on the valuable contributions by of Dr. Kamar's group in France (2-4). In our study, we noted a high seroprevalence of anti-HEV IgG. Almost 30% of transplant recipients were seropositive for anti-HEV IgG (5). We also found unexplained increases in liver function tests in transplant recipients. However, there was no significant difference in serum alanine transferase (ALT) levels between anti-HEV-seropositive and -seronegative groups (5).

As mentioned in the letter, serological methods have certain limitations. There are doubts regarding the diagnostic value of anti-HEV IgG serological evaluation in the diagnosis of HEV infection. In a study in Taiwan, an area in which hepatitis E is not endemic, the sensitivity of anti-HEV IgG compared with reverse-transcription PCR was 86.7% (6). Its specificity in diagnosing acute hepatitis

was 92%. Lin *et al.* concluded that anti-HEV IgG is a good test for screening acute hepatitis E in nonendemic areas (6). Jiang *et al.* evaluated the quality of diagnostic ELISA kits in detecting HEV-specific IgG using HEV diagnostic reference sera from positive and negative cases, observing that the conformity of positive results exceeded 90% in all kits (7). In contrast, Zaki *et al.*, in Egypt, an endemic area for hepatitis E, found the sensitivity of anti-HEV IgG to be very low (2.3%) (8). It appears that the diagnostic value of anti-HEV IgG serological tests in endemic areas is questionable.

As emphasized by Dr. Kamar, the setting of transplant recipients in Iran requires further evaluation using more specific modalities, such as polymerase chain reaction (PCR). Studying the presence of HEV RNA, its relationship with elevated liver enzymes, and acute or chronic forms of infection in these patients is recommended.

### References

1. Kamar N. Hepatitis E Virus Infection in Iranian Kidney-Transplant Patients. *Hepat Mon.* 2011;11(11):[Epub ahead of print].
2. Kamar N, Mansuy JM, Cointault O, Selves J, Abravanel F, Danjou M, et al. Hepatitis E virus-related cirrhosis in kidney- and kidney-pancreas-transplant recipients. *Am J Transplant.* 2008;8(8):1744 - 8.
3. Kamar N, Rostaing L, Selves J, Sandres-Saune K, Alric L, Durand D, et al. Natural history of hepatitis C virus-related liver fibrosis after renal transplantation. *Am J Transplant.* 2005;5(7):1704 - 12.
4. Kamar N, Selves J, Mansuy JM, Ouezzani L, Peron JM, Guitard J, et al. Hepatitis E virus and chronic hepatitis in organ-transplant

\* Corresponding author: Nariman Sepehrvand, National Institute of Health Research, Tehran University of Medical Sciences, Tehran, IR Iran. Tel: +98-9125936372, Fax: +98- 4412231930, E-mail: Nariman256@gmail.com

- recipients. *New Engl J Med*. 2008;**358**(8):811-7.
5. Khameneh ZR, Sepelhrvand N, Masudi S. Seroprevalence of Hepatitis E among Iranian Renal Transplant Recipients. *Hepat Mon*. 2011;**11**(8):646-51.
  6. Lin CC, Wu JC, Chang TT, Chang WY, Yu ML, Tam AW, et al. Diagnostic value of immunoglobulin G (IgG) and IgM anti-hepatitis E virus (HEV) tests based on HEV RNA in an area where hepatitis E is not endemic. *J Clin Microbiol*. 2000;**38**(11):3915 - 8.
  7. Jiang YZ, Tian RG, Lu J, Bi SL. [Evaluation of the ELISA diagnostic kits for hepatitis E virus antibody in the reference serum, the suspect patients of hepatitis E and normal persons' sera]. *Zhonghua Shi Yan He Lin Chuang Bing Du Xue Za Zhi*. 2007;**21**(1):59 - 61.
  8. Zaki M-S, Foud MF, Mohamed AF. Value of hepatitis E virus detection by cell culture compared with nested PCR and serological studies by IgM and IgG. *FEMS Immunol Med Microbiol*. 2009;**56**(1):73 - 9.