

## Letter to Editor

# Prevalence of HIV Infection among Hemodialysis Patients

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## Dear Editor-in-chief

Human immunodeficiency virus (HIV) belongs to human retrovirus family and transmitted by blood transfusion and blood products. 36.9 million People were living with HIV infection worldwide in 2014 approximately<sup>1</sup>, during which 2 million (1.9–2.2 million) new infections with HIV had occurred. End-stage renal disease (ESRD) patients treated by hemodialysis (HD) are more susceptible for infection by human immunodeficiency virus infection. Renal failure can be an associated condition or could be a direct consequence of HIV infection<sup>2,3</sup>. Advanced HIV disease which is indicates by a low CD4 cell count is development of renal diseases subsequently<sup>4</sup>, however many other causes now may cause renal failure in patients with HIV, including drug-induced toxicity, hypertensive nephroangiosclerosis, and diabetes<sup>5</sup>. HIV infection and hemodialysis have same consequences such as cardiovascular diseases, immunosuppression, anemia, weight loss, and osteodystrophy<sup>6,7</sup>.

Compared with rate of infection with other viral infection such as hepatitis B virus (HBV) or hepatitis C virus (HCV), the risk of HIV infection among hemodialysis patients is lower as the contact with contaminated sources.

Although intensive HIV research has been done for 20 years, we have a little knowledge about mortality risk factor in ESRD on HIV-infected patients. Hemodialysis patients who have HIV-infected are

assumed to a high risk for death<sup>4</sup>.

The finding the current study demonstrated the prevalence of HIV in hemodialysis patients which was conducted in 5 hemodialysis centers in Tehran province, Iran, in the 2016. All the enrolled participants were informed about study and written informed consent was obtained. Statistical analysis was performed by SPSS version 16 (SPSS Inc, Chicago, IL, USA).

Among 360 patients, 213 (59.17%) of patients were men and 147 (40.83%) were females; the mean age of patients was 53.43. HIV Ab was negative in all cases. This result has been confirmed in other studies as well<sup>8</sup>. The highest frequency for duration of dialysis is 1-5 years.

Nowadays viral transmission via hemodialysis routes is controlled and limited since more effective screening of blood donor. Screening and early diagnosis of kidney disease will improve outcomes in patients with HIV infection.

Considering all of these evidences, further studies are recommended strongly to evaluate the real prevalence of HIV in these patients.

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