

The Prevalence of Acute and Latent HHV-6 Infection in the Pancreas Transplant Patients

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Background & Objectives: Human herpes virus 6 (HHV-6) as an opportunistic viral pathogen has etiologic role in clinical outcomes in the pancreas transplant patients treated with high dose of immunosuppressive drugs. In this study the prevalence of acute and latent HHV-6 infection was evaluated in the pancreas transplant patients for the first time in Iran.

Methods: In a cross sectional study 122 EDTA-treated blood samples were collected from 50 pancreas transplant patients in different time periods post- transplantation between years 2007 to 2011. The plasma and buffy coats were extracted from collected blood samples. The molecular prevalence of HHV-6 infection was studied by an in house nested – qualitative PCR protocol. Also risk factors related to post pancreas transplant outcomes with or without HHV-6 infection was analysed statically by SPSS software.

Results: The prevalence of HHV-6 infection in plasma samples collected in different time periods post pancreas transplantation was as follow: 4 of 49 (8.0%) in the first week ,5 of 34 (14.7%) in the second week , and 2 of 18 (11.7%) in the third week post transplantation. The prevalence of HHV-6 infection in buffy coat samples collected in different time periods post pancreas transplantation was as follow:7 of 50 (14.0%) in the first week, 2 of 33 (6.1%) in the second week, and 1 of 18 (5.6%) in the third week post transplantation. Significant correlations were found between indices including: sex, age, rejection, and the type of pancreas transplantation with HHV-6 infection in both plasma and buffy coat samples of transplant patients.

Conclusion: Diagnosis of high prevalence of HHV-6 infection simultaneously in plasma and buffy coat samples of the pancreas transplant patients, emphasis on the important role of HHV-6 infection in post transplantation outcomes need further completed studies.

Keywords: Human Herpes Virus 6; Pancreas Transplantation; Latent Infection; Activa Infection