Letter to the Editor

Prevalence of hepatitis C infection in lymphoma patients in a Turkish center

To the Editor,

Hepatitis C virus (HCV) is a positive stranded RNA hepacivirus belonging to the Flaviviridea family. Approximately 170 millions of people are infected by HCV worldwide making a major public health problem[1]. HCV is a hepatotrophic and lymphotrophic virus and it causes direct hepatic injury, many extra hepatic phenomenon associated with chronic HCV infection have also reported[2]. The role of HCV in B cell lymphoproliferation was demonstrated initially in essential mixed cryoglobulinemia ten years ago and then in non-Hodgkin's lymphomas (NHL)[3]. The lymphomagenic role of HCV is still a matter of debate because of the remarkable geographic and ethnic variability in the prevalence of HCV infection among patients with lymphoma[4]. Italian and Japanese studies have revealed an up to 40% prevalence, but these data have not been confirmed by England and France[5]. Between August 2002 and February 2004, 500 non-treated, non-transfused lymphoma patients (478 NHL and 108 Hodgkin's disease) were included in the study. Their ages are 18-78 years (41 ± 15, median 40). Diagnosis of NHL was made using standard techniques and the Revised European-American Classification (REAL) was used. The presence of anti-HCV antibodies was determined using second-generation enzyme-liked immunosorbent assay (ELISA) using a commercial kit. PCR amplification was performed in positive cases. Of the 586 non-treated, non-transfused lymphoma patients there were 26 positive results for HCV (4.4%). The prevalence of HCV in the gender and age matched control group was 0.5%. The etiologic role of HCV infection in the pathogenesis of lymphoproliferative disease is still controversial. It is widely thought, but not explained yet, that there might be a pathogenetic link between the HCV infection and NHL[6]. Several analyses demonstrated significantly higher rates of HCV infection when NHL patients were compared with controls. The association appears to be strongest for patients with monocytoid NHL and lymphoplasmocytoid lymphomas[7]. Various data have been reported from different authors. A high frequency of HCV infection among NHL patients has been reported by Italian 9-34%[6]. Romanian 29.5%, Japan 22.2%, USA 22% and Southern Turkey 9.18%[2,7]. However, studies from other countries, including the United Kingdom 0%, Germany 4.3%, Turkey 0-5% and Canada 0% did not confirm such an association[6,8-10]. In summary, discordant date were reported to be not only among different countries, but also in the different regions of the same country. As we have reported before, there was no HCV positivity in our group of 90 cases and also our prevalence was lower than those of Italian, Romanian, and Japan[9]. The discrepancies among studies may be explained by the geographic, ethnic differentiation of the populations studied. Thus, if an important association between HCV and NHL can be shown in larger studies, targeting the virus will be a therapeutic option in this heterogeneous disease as reported in some series.

REFERENCES

1. Weng W, Levy S. Hepatitis C virus (HCV) and lymphomagenesis. Leuk Lymphoma 2003;44:1113-20.
2. Paydas S, Kilic B, et al. Anti HCV and HCV RNA prevalance and clinical correlations in cases with non-Hodgkin's lymphoma. Am J Hematol 2003;74: 89-93.
3. Silvestri F, Baccarani M, Botta GA, et al. Prevalance of hepatitis C virus infection in patients with lymphoproliferative disorders. Blood 1999;87:4296-301.

4. Yoshida EM, Shariff S, Shenkier T. Hepatitis C and B-cell non-Hodgkin's lymphoma: a geographically variable association? Am J Med 2000;108:350-1.
5. Hausfater P, Cacoub P, Sterkers Y, et al. Hepatitis C virus infection and lymphoproliferative diseases: prospective study on 1576 patients in France. Am J Hematol 2001;67:168-71.
6. Collier JD, Zanke B, Moore M, et al. No associated between hepatitis C and B-cell lymphoma. Hepatology 1999;29:1259-61.
7. Isikdogan A, Ayyildiz O. Hepatitis C virus in patients with non-Hodgkin's lymphoma in Southeastern Anatolia region of Turkey. Leuk Lymphoma 2003; 44:1745-7.
8. Hanley C, Jarvis L, Simmon SP, et al. HCV and HGV in B-cell non-Hodgkin's lymphoma. Lancet 1996;347:1339.
9. Yamaç K, Aydemir S, Ozturk G, et al. Hepatitis C virus infection in lymphoma patients in a Turkish center. Eur J Epidemiol 2000;16:685.
10. Arican A, Sengezer T, Bozdağ M, et al. Prevalance of hepatitis G virus and hepatitis C virus infection in patients with non-Hodgkin's lymphoma. Med Oncol 2000;17:123-6.

Address for Correspondence:

Turgay FEN, MD

Department of Hematology
Ankara Oncology Research
and Education Hospital
Ankara, TURKEY