

# Hepatitis C Infection and Non Hodgkin Lymphoma in 44 Egyptian Patients: A Single Institute Experience

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## Background

Hepatitis C virus (HCV) infection has recently been recognized as a potential cause of developing B-cell lymphoproliferative disorders. Several studies have reported a significantly higher prevalence of HCV in patients with NHL (i.e. 20% in Italy, 6.4% in other European countries, 14% in Japan and 11% in USA). HCV is endemic in EGYPT, according to the WHO (article: HCV in Egypt, by Z.Mesban & A.Wakil ; 2003), HCV has been declared a global health problem with approximately 3% of the world's population infected with HCV- Egypt is considered to contain the highest prevalence of HCV in the world, the national prevalence rate of HCV antibodies positivity was estimated by the Egyptian ministry of health & population (MOHP) in 1999 to be 18.9%, with genotype 4 representing over 90% of the cases in Egypt.

## Aim

Defining the epidemiological aspect of HCV infection in newly diagnosed untreated NHL Egyptian patients with special emphasis on the relationship between HCV infection & B cell-NHL, raising the possibility of combining antiviral therapy (Interferon/ribavirin) with lymphoma treatment protocols in HCV+ve NHL patients to achieve better therapeutic outcomes.

## Patients and Methods

Sera collected from patients recently diagnosed with NHL presented to our institute from December 2008 through March 2009. Forty four patients were included in our study; 29(65.9%) Males and 15(34.1%) Females with a mean age of 42 (range 18-65). Patients were screened for the presence of HCV antibodies with commercially available serological tests. Reverse transcription-PCR was carried out in 9 cases for quantitation of HCV-RNA.

## Results

Thirty one patients (70.5%) were high grade NHL and 13(29.5%) low grade NHL. HCV positive patients were 16(36.4%) and 28(63.3%) were HCV negative.

Quantitative RT-PCR was performed for 9 HCV positive patients out of 16 and they were all in the low to moderate viraemia range (1x10<sup>4</sup> -5x10<sup>5</sup> IU/ml).

## Conclusions

In our study inspite of the limited number of patient's results suggest the presence of a correlation between HCV & NHL, but we are still screening patients coming to our institute to establish a statistically significant correlation.