EDITORIAL

HEPATITIS C – facts in numbers

HEADINGS – Hepatitis C. Diabetes Mellitus. HIV. Alcoholism.

Despite the technical development to detect hepatitis C virus (HCV) in the serum had decreased substantially the risk of acquiring the virus through blood transfusion, at least 3 to 4 million are infected every year and it is estimated that 3% of the population is infected worldwide[15].

The anti-HCV prevalence in blood donors in Latin America varies from 0.2%-0.5% in Chile to 1.7%–3.4% in northeast of Brazil. Indeed, anti-HCV prevalence in blood donors varies from 0.8%–2.8% in southeast to 1.7%-3.4% in northeast of Brazil. It is estimated that the frequency to be of 1.23%[2].

Most patients with hepatitis C are asymptomatic, having discovered the virus during blood donation, routine check-ups or during diagnostics exams for other reasons. The infection becomes chronic in approximately 80% of the cases. HCV seems to develop mechanisms through its proteins to survive in host cells[9]. Despite the studies to determine the natural history of hepatitis C be controversial, it is estimated that at least 20% of patients chronically infected develop cirrhosis within 20 years[16]. Thus, chronic hepatitis C can be considered worldwide as "the silent epidemic".

The HCV infection is also an important risk factor for hepatocellular carcinoma (HCC) development[13]. HCV proteins have been correlated with hepatic carcinogenesis[10]. Usually, HCC develops after two or more decades of hepatitis C infection and the risk is increased with advanced fibrosis. It is a frequent complication in the eastern countries, but it is already observed an increasing trend in its frequency in the western countries.

Risk factors for HCV infection are blood transfusion before 1992, intravenous drug use, intra-nasal cocaine use, surgery, sexual promiscuity, tattoo, blood exposure and hemodialysis[1]. However, in some cases, no risk factor can be identified.

In this number of the **Archives of Gastroenterology**, three active research groups in Brazil bring to us important contributions emphasizing the hepatitis C high prevalence in specific population groups in Brazil.

In the first, TOVO et al.[18], describe the frequency of HBV-HIV and HCV-HIV co-infections, being important the association of HCV. Among those who tested for anti-HCV, 126/330 (38.2%) were positive, being the use of intravenous drug abuse (75.3%) the main risk factor in this group.

In the second, GALPERIM et al.[8] report the hepatitis C virus prevalence in alcoholic addicted patients. Among 114 alcohol addicted patients, 17 (15%) were positive for the anti-HCV. And again, the use of intravenous drugs abuse (13/17) was the main risk factor in this group.

And in the third, PAROLIN et al.[14] report the HCV prevalence in type 2 diabetes mellitus (DM) patients. In comparison to the virus prevalence in the healthy adult local population, defined by blood donors (0.65%), type 2 DM patients presented more anti-HCV positive tests (2%, $P = 0.04$).

In chronic hepatitis C, progression of fibrosis is what determines prognosis and thus the need for treatment and its urgency. The fibrogenesis is a dynamic process, where it is mediated by necroinflammatory activity and stellar cells activation. The rate of progression of fibrosis seems to vary among patients and the main factors associated with this progression seem to be the acquired infection age, masculine sex and excessive alcohol consumption. Immunosuppression (HIV infection), hepatic steatosis, obesity and diabetes seem also to contribute for progression of fibrosis[5].

Interferon alpha has been being the base of all the regimens for effective hepatitis C treatment. During the last decade, researchers have been focusing their attentions in the attempt to improve the doses and time of treatment, testing different interferons alpha and other drugs. Ribavirine, that has little effect on HCV when used in monotherapy, has been doubling the treatment effectiveness when combined with interferon. Therefore, currently the combination of interferon alpha or peguilated-interferon alpha and ribavirine have been the treatment choice for the hepatitis C[4, 7, 11, 12, 19]. However, these treatments present limited effectiveness, because many of the patients who receive this treatment will persist with the virus after stopping the treatment. In general, patients with hepatic steatosis due to the obesity, alcohol consumption or DM respond to treatment less frequently than patients without steatosis[6] and in HIV co-infected patients the virologic response frequency is lower than the patients without co-infection[17].

The epidemiological results presented by TOVO et al.[18], GALPERIM et al.[8] and PAROLIN et al.[14] are important for public health decision making, because they reflect the reality found in daily clinical practice. In Brazil, where most high cost medical treatment has been defrayed by the government it is important to perform local pharmacoeconomical studies. In this setting, the development of the National Network for Clinical Trials is a positive contribution, because it will be able to identify forms of allocating resources more cost-efficiently,

besides enabling the clinical trials with new therapeutic options optimized to our local reality[3].

The message is clear, the findings described in this number of the **Archives of Gastroenterology**, show the frequency of hepatitis C in specific groups where probably the progression for fibrosis is higher. HIV co-infection, presence of DM and alcoholism increase the liver fibrosis progression and at the same time are markers for poor response to the available treatment for hepatitis C. Much progress was accomplished to improve knowledge about hepatitis C, but much more must be done to avoid the disease progression in these groups.

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