Viral load variation in three batches of sera taken one month apart.

Conclusion: HCV infected haemodialysis patients experience significant fluctuation in viral load with time but no correlation with biochemical evidence of liver injury. HCV genotype 1 is associated with higher viral load as compared to genotype 3. Single-step rt qPCR assay has the potential for rapid HCV genotyping.


53.022

Runs test and linear trend test of the time series of primary hepatocellular carcinoma mortality in Haimen City, 1969—2007

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Background: To evaluate the trend and contributing factors of time series changes of primary hepatocellular carcinoma (HCC) mortality between 1969 and 2007 in Haimen City.

Methods: A five-year retrospective survey was conducted in Haimen City in 1973 to verify the cause of death among all city population between 1969 and 1973. The birth/death reporting system was also established and was defined as one of the nation’s pilot city for vital statistics by Ministry of Health and Ministry of Public Security. In 2006 it was accepted by the International Union Against Cancer (UICC) as a member institute. This paper describes the time series changes of HCC mortality in Haimen City between 1969 and 2007. Runs test was performed as stability test for the time series and linear trend test was performed as significance test.

Results: HCC mortality increased from 33.18 per 100,000 in 1969 to 49.32 per 100,000 in 1979, with an annual increasing rate of 4.04%. Between 1979 and 1989 the mortality increased from 49.32 to 70.64 per 100,000, with an annual increasing rate of 3.66%. Between 1989 and 1999 the mortality decreased from 70.64 to 54.94 per 100,000, with an annual increasing rate of -2.28%. Between 1999 and 2007 the mortality decreased from 54.94 to 50.09 per 100,000, with an annual increasing rate of -1.15%. The runs test showed an instable time series, and the linear trend test indicated a statistical significant decreasing trend of HCC mortality since 1990. It is unlikely that this decreasing trend is caused by random.

Conclusion: The decreasing trend of HCC mortality in Haimen City since 1990 is related with the intervention of environmental factors including ‘changing drinking water, changing staple food and prevention of HBV infection’ as major components.


53.023

Predictive factors for sustained virological response in the treatment of patients with chronic hepatitis C

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Background: The goal of antiviral therapy in patients with chronic hepatitis C is to prevent progression of the disease. The most important treatment response is the absence of viral RNA six months after discontinuation the therapy, defined as the sustained virological response (SVR). Successful therapy depends on many factors that are in association with the virus itself and/or infected person. The aim of the investigation was identifying some characteristics of the patients and hepatitis C virus as pre-treatment predictive factors for achieving SVR.

Methods: Total of 364 treatment-naïve patients was enrolled in the study (60.4% were males; age from 16 yr-65 yr, mean 42.18, SD ± 11.71). Liver cirrhosis had 21.7% of patients. Patients were treated with standard doses of pegylated interferon alpha and ribavirin during 6 to 12 months depending on the genotype in the period from January, 2004 to January, 2009. Source of infection was blood transfusion, intravenous drug abuse, accidental injury and unknown in 26.5%, 19.5%, 12%, and 42% of patients, respectively. Genotype distribution revealed genotype 1, 3, and 4 in 56.8%, 26.7% and 5% of patients, respectively. The minority of patients had genotype 2 and/or mixed genotypes (1b3a, 1b4). Detection and quantification of viral RNA with commercial assay (Cobas Amplicor HCV Monitor v2, Roche Molecular Systems) was evaluated before treatment, after treatment and six months later. Electronic data base (SPSS for Windows V11.0) was used for statistical analysis.

Results: Total of 82.8% of patients were negative (HCV RNA < 50 IU/mL) after treatment while SVR was achieved in 68.8% of patients. Binary logistic regression analysis revealed intravenous drug abuse (p = .005) and genotype 3 (p = .003) as positive, whereas age older than 40 (p = .000), presence of cirrhosis (p = .039), and genotype 1 (p = .000) were negative predictor factors for SVR. In multivariate analysis, age older than 40 (p = .001) and genotype 1 (p = .000) were significant variables (Exp(B) = .351 vs. .233).

Conclusion: Successful virological response to therapy is expected in patients with genotype 3 and intravenous drug users. Presence of genotype 1 is the most important negative predictor for treatment of patients with chronic hepatitis C.