Correlation between prevalence of hepatitis B and C virus infection and mortality of hepatocellular carcinoma in Uvs province, Mongolia

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RESULTS

- The global prevalence of individuals infected with HBV and HCV is estimated to be at between 248 and 350 (1,2) million and between 80 million and 170 million (3,4) respectively.
- Mongolia has the highest mortality of hepatocellular carcinoma (HCC) in the world that is eight times higher than the world average (Fig 1) (5).
- Among all 21 Mongolian provinces, Uvs has one of the highest incidence and mortality of HCC. The mortality rate of HCC increased 91% from 39.8 per 100,000 people in 2003 to 75.9 per 100,000 people in 2015 (6).
- Hepatitis B (HBV) and hepatitis C (HCV) causes nearly 80% of hepatocellular carcinoma (HCC) (7).
- In the current study, we intended to determine the prevalence of hepatitis B (HBsAg), hepatitis C (anti-HCV), and their correlation with HCC mortality in Uvs Province, Mongolia.

CONCLUSIONS

- Prevalence of HBV and HCV are at a similar level compared to recent nationwide prevalence studies among Mongolian adults (9.87% vs. 11.1% for HBV and 9.51% vs. 8.5% for HCV) (8).
- A high HCC prevalence is strongly correlated with the HCC mortality in Uvs Province compared to the HBV prevalence, thus indicating that HCV contributes more to the HCC cases compared to HBV.

REFERENCES


METHODS

- Total of 15,893 people or nearly 30% of the adult population in Uvs province, (6082 male, mean age 40.52 ± 12.97) participated in hepatitis screening activities between March and May of 2016.
- HBsAg and anti-HCV in participant’s peripheral blood was detected using on-site HBsAg and anti-HCV rapid tests (CTK Biotech Inc, San Diego, USA). All participants completed a structured demographic questionnaire.
- The Pearson’s correlation test was used to determine a correlation between the prevalence of HBsAg, anti-HCV and the actual HCC mortality in Uvs Province between 2003 and 2015. Statistical analysis was performed using SPSS-17 program.

CONFLICTS OF INTEREST

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