

Knowledge and Awareness of Viral Hepatitis among Mongolian Population

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BACKGROUND

Mongolia has one of the highest prevalence of hepatitis B and C viruses in the world. An estimated 400,000 people live with chronic viral hepatitis in Mongolia. Despite the high prevalence, most people are unaware of viral hepatitis and its health consequences. In addition, over 70% of the infected people are not aware of their infection status. In this study, we evaluated the current understanding about transmission routes of hepatitis B and C viruses, as well as overall awareness within the general population in Mongolia. The first state of prevention of viral hepatitis is the education.

Table 2. Question about of transmission

Questions	True	False	Do Not know
When HBV or HCV infected mother give a birth, can infants be infected?	252(13.71)	310(16.86)	1276(69.42)
Is HBV possible to transmit by sexually?	775(42.16)	126(6.85)	937(50.97)
Blood transfusion from HBV and HCV infected people put you in risk getting infection?	471(25.62)	498(27.09)	869(47.27)
Is it possible to get infection when you stick infected syringes or needles, or razor-edge instruments?	1208(65.74)	52(2.82)	578(31.44)

Table 2 shows that half of respondents predominantly chosen 'do not know' to main routes of transmission of HBV, HCV infection which means that there are lack of information of it. In the age group of respondents, we observed that 28-47 age people tend to choose correct answers. Gladly people aware that hepatitis virus infected syringe or other things can spread infection.

Figure 2. Chronic hepatitis virus infection can be cause of liver cancer



Figure 3. Chronic hepatitis C and B virus infections can cause dead



CONCLUSIONS

In certain areas, Mongolian public do have relatively good knowledge and awareness. This may stem from the fact that viral hepatitis is known as "the needle infection disease" in Mongolia. On the contrary, sexual transmission of hepatitis B is not well known among the Mongolian public. At the same time, Mongolian population is still not aware that viral hepatitis can lead to liver cirrhosis, hepatocellular carcinoma and death. This finding is particularly puzzling, since Mongolia has the highest liver cancer mortality rate in the world—nearly eight times the world average and this fact is constantly circulated in both traditional and social media. The results of this study provided the baseline data for the Prevention Campaign of the Hepatitis Prevention, Control, and Elimination Program in Mongolia, and similar study will be conducted in 2018 to assess an effectiveness of the Prevention Campaign in improving the knowledge and awareness of hepatitis among the Mongolian population.

METHODS

This study was designed as cross-sectional and self-knowledge questionnaire to evaluate the knowledge, transmission and prevention of hepatitis B and C among the Mongolian population between January and October 2015. A total of 2257 individuals who selected as a simple random sample, participated in the study was approved by an Institutional Review Board. We prepared a specially designed questionnaire that written in Mongolian, was used for data collection, including basic demographic characteristics, modes of transmission, and viral hepatitis prevention and we did not took a pre or post-test. The knowledge test consisting of four questions, (5) routes of transmission (2) complications, (2) vaccination. The participants were asked to answer each question with "true", "false", or "do not know" and incorrect or correct answers measured by the questions that asked also "false" and "do not know" answers are calculated separate way in data analyzer. After completion of questionnaire, descriptive statistics were used illustrate the respondents' demographic characteristics. The categorical variables were measured as percentages. The Statistical Package for Social Sciences (Pearson- Chi test) and Microsoft Excel were used for data analysis.

Table 1. Profile of study group (N=2,257)

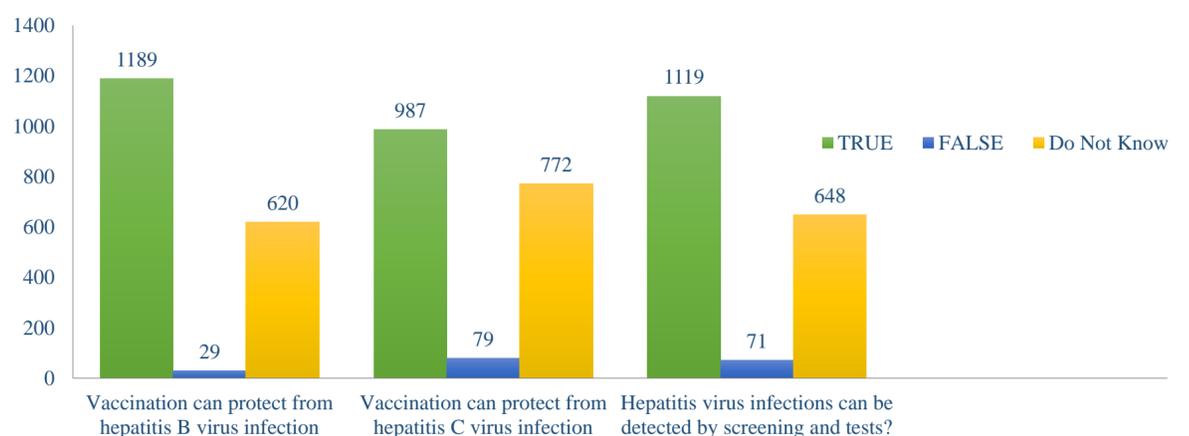
Study group characteristics		N	%
Gender	Male	816	34.71
	Female	1441	65.28
Age	18-27	359	19.53
	28-37	452	24.59
	38-47	403	21.92
	48-57	409	22.25
	58<	215	11.69
Education level	Secondary	603	32.8
	Specialized technical education	259	14
	Tertiary	978	53.2
Location	Urban	120	6.52
	Rural	1718	93.47

The sociodemographic characteristics of the study are shown in Table 1. Over half (53.2%) had completed tertiary education. Respondents were predominantly female and age group people were involved in this study equally.

RESULTS

A total of 2,257 respondents including 1,441 (65.45%) females, 816 (36.1%) from both urban and rural areas were enrolled in this study. Nearly 60% of study participants correctly identified that blood transfusion, needle injection, and medical procedures are major infection pathways for viral hepatitis. However, still around 32% of study subjects did not know these transmission routes, whereas small percentage ~3% of participants had incorrect information. Interestingly, 53.5% of participants did not know that HBV could transmit sexually, while 40.6% correctly responded to this question, indicating a big gap of knowledge and awareness. 11% and 44.1% of participants correctly responded that shaking hands or kissing do not put them in risk for hepatitis infection with parenteral route of transmission, whereas 51% and 47.1% of participants still did not know the answer. The study results also showed that knowledge and awareness of study subjects about viral hepatitis transmission is positively correlated with their education level (p<0.005).

Figure 1. Questions about Vaccination



Almost half of respondents believe that vaccination can protect from HBV, HCV infection. However, there is no vaccination against HCV. The reason why we asked about HCV vaccination is try to assess whether people have true knowledge about it. Also 60% of respondents answered diagnostic tests can cover the HBV, HCV infection.

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CONFLICTS OF INTEREST

- Authors declare no conflict of interest