

中文題目：在一項大型台灣族群研究探討 B 型肝炎和 C 型肝炎感染危險因子的性別差異

英文題目：Sex difference in the associations among risk factors with hepatitis B and C infections in a large Taiwanese population study

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Background: The prevalence rates of hepatitis B and C virus infections are high in Taiwan. Hepatitis B (HBV) and C virus (HCV) infections are common causes of chronic liver disease and its ensuing complications. Therefore, it is important to be able to detect the factors associated with hepatitis B and C infections as early as possible. Therefore, we aimed to explore these relationships in a large cohort of around 120,000 Taiwanese participants in the Taiwan Biobank, and also to identify sex differences in the associations among risk factors with hepatitis B and C infections.

Methods: The mean age of the 121,421 enrolled participants was 49.9 ± 11.0 year-old, and included 43,636 males and 77,785 females. The participants were stratified into four groups according to without HBV infection ($n = 107,617$; 88.6%) or with HBV infection ($n = 13,804$; 11.4%), and without HCV infection ($n = 118,671$; 97.7%) or with HCV infection ($n = 2750$; 2.3%).

Results: Multivariable analysis revealed that male (vs. female; odds ratio [OR] = 1.346; 95% confidence interval [CI] = 1.282-1.414; $p < 0.001$) was significantly associated with HBV infection, whereas female (OR = 0.642; 95% CI = 0.575-0.716; $p < 0.001$) was significantly associated with HCV infection. Furthermore, there were significant interactions between sex and age ($p < 0.001$), body mass index ($p < 0.001$), total cholesterol ($p = 0.002$), aspartate aminotransferase ($p = 0.024$), and estimated

glomerular filtration rate ($p = 0.012$) on HBV infection. There were significant interactions between sex and age ($p < 0.001$), hypertension ($p = 0.010$), fasting glucose ($p = 0.031$), and uric acid ($p = 0.001$) on HCV infection.

Conclusions: In conclusion, sex difference was noted with hepatitis B and C infections. Further, there were sex differences in the associations among risk factors with hepatitis B and C infections in a large Taiwanese population study.

