



Investigation on infection of hepatitis G virus in 105 cases of drug abusers

Rui-Xing Zhong, Hong-Tao Luo, Rui-Xian Zhang, Guo-Rong Li, Ling Lu

Rui-Xing Zhong, Hong-Tao Luo, Rui-Xian Zhang, The First Hospital of Foshan City, Foshan 528000, Guangdong Province, China

Guo-Rong Li, The Third Hospital of Foshan City, Foshan 528000, Guangdong Province, China

Ling Lu, Molecular Medicine Center, Sun Yat-Sen University of Medical Sciences, Guangzhou 510089, Guangdong Province, China

Author contributions: All authors contributed equally to the work.

Supported by the Natural Scientific Foundation of Guangdong Province, No 9622032-02

Correspondence to: Rui-Xing Zhong, The First Hospital of Foshan City, Foshan 528000, Guangdong Province, China

Received: November 9, 1999

Revised: February 24, 2000

Accepted: April 18, 2000

Published online: September 15, 2000

Abstract

AIM: To investigate the infection of hepatitis G virus (HGV) in 105 cases of drug abusers.

METHODS: One hundred and five heroin addicts including 85 males and 20 females, aged from 17a to 45a old, mean age $26.3a \pm 5.8a$ were observed. Duration of the drug abusing was ranged from 5 mo to 168 mo with mean 37.5 ± 23.6 mo. Seventy-five cases accepted the drug by intravenous injection only, 30 others by both intravenous and scalded inhaling ways. All cases had no history of blood transfusion. (1) Detection of HGV-RNA: total RNA was extracted from serum by the acid guanidinium thiocyanate-phenol-ethanol method, the 5' terminal non-coded region of HGV-RNA was amplified by nested reverse transcription-PCR. (2) anti-HAV-IgM, HBsAg, anti-HCV, HDAg, anti-HD, anti-HD-IgM and anti-HEV were detected by

ELISA. Reagents were provided by Shenzhen Moon Bay Biologic Company. (3) Hepatic functions were determined by Hitachi 7510 automatic analyzer.

RESULTS: (1) Incidence of HGV infection: 25 (23.8%) of 105 drug abusers, 21 men and 4 women, were infected with HGV. The mean drug taking time of HGV infected cases were 38.6 ± 19.9 mo, it is similar with the mean duration of drug abusing, 37.7 ± 24.6 mo ($P > 0.05$), of those cases without HGV infection. (2) Superinfection of HGV with hepatitis B virus (HBV) or hepatitis C virus (HCV): 26 (24.7%) of 105 addicts were infected with HBV and 68 (64.8%) with HCV. Among 25 cases infected with HGV, 8 (32%) of them were infected with HGV alone, 6 (24.0%) were superinfected with HCV, 2 (8.0%) with HBV and 9 (36.0%) with HCV and HBV. Thus, 17 (68.0%) of 25 cases infected with HGV were superinfected with HCV and/or HBV. (3) Hepatic function tests: The total serum bilirubin levels of all 105 cases were less than $20 \mu\text{mol/L}$. The ALT levels of 30 (28.6%) cases were more than 40 U/L and among them, 1 case was infected with HGV only, 1 was superinfected with HGV and HBV, 3 with HGV and HCV, 7 with HGV, HBV and HCV respectively. Meanwhile also among the cases with abnormal increased ALT level, 1 case infected with HBV, 15 with HCV, 2 superinfected with HBV and HCV.

CONCLUSION: The results of this investigation reveal that in drug abusers the incidence of viral hepatitis is in the order of HCV, HBV and HGV.

Key words: Hepatitis G virus; Heroin dependence; Substance abuse polymerase chain reaction; Serodiagnosis; Hepatitis C virus

© The Author(s) 2000. Published by Baishideng Publishing Group Inc. All rights reserved.

Zhong RX, Luo HT, Zhang RX, Li GR, Lu L. Investigation on infection of hepatitis G virus in 105 cases of drug abusers. *World J Gastroenterology* 2000; 6(Suppl 3): 105 Available from: URL: <http://www.wjgnet.com/1007-9327/full/v3/iSuppl3/105.htm> DOI: <http://dx.doi.org/10.3748/wjg.v3.iSuppl3.105>

E- Editor: Hu S



Published by **Baishideng Publishing Group Inc**

8226 Regency Drive, Pleasanton, CA 94588, USA

Telephone: +1-925-223-8242

Fax: +1-925-223-8243

E-mail: bpgoffice@wjgnet.com

Help Desk: <http://www.wjgnet.com/esps/helpdesk.aspx>

<http://www.wjgnet.com>

