



Relationship between gallbladder motor function and automatic function, fasting plasma levels of cholecystokinin and motilin in liver cirrhosis

Wang-Ming Hu, Chao-Li Yin, Zai-Ying Lu, Hua Wu

Wang-Ming Hu, Chao-Li Yin, Zai-Ying Lu, Hua Wu, Department of Gastroenterology, Tongji Hospital, Wuhan 430030, Hubei Province, China

Author contributions: All authors contributed equally to the work.

Original title: *China National Journal of New Gastroenterology* (1995-1997) renamed *World Journal of Gastroenterology* (1998-).

Received: December 11, 1995

Revised: February 21, 1996

Accepted: August 19, 1996

Published online: September 15, 1996

Abstract

AIM: To study gallbladder motor function in liver cirrhosis.

METHODS: Gallbladder motility function was measured by real time ultrasonography in 30 patients with cirrhosis and 20 normal subjects. Autonomic function was detected by heart rate variability (HRV) analysis and fasting plasma levels of cholecystokinin and motilin were measured by radioimmunoassay in cirrhotic and controls.

RESULTS: (1) Basal and residual gallbladder volumes were significantly higher in patients with cirrhosis than that in controls, gallbladder emptying time was markedly prolonged, and postprandial gallbladder contractile frequencies were significantly decreased in patients with cirrhosis compared to normal subjects $P < 0.001$. (2)

Total power, very low frequency power, low frequency, and high frequency power (HF) IN 24 H HRV frequency domain measure were conspicuously reduced in cirrhotic compared to normal controls, respectively. (3) The patients with cirrhosis showed negative correlation between HF and fasting gallbladder volumes ($r = -0.44$, $P < 0.02$). An inverse correlation was also seen between HF and postprandial gallbladder contractile frequencies ($r = 0.62$, $P < 0.001$). (4) Fasting plasma levels of cholecystokinin and motilin were significantly higher in cirrhotic than in normal subjects, respectively.

CONCLUSION: There were gallbladder tension defect and motility abnormalities in patients with cirrhosis. The impaired autonomic function and abnormal metabolism of cholecystokinin and motilin were also seen in cirrhosis. The impaired autonomic function and abnormal metabolism of cholecystokinin and motilin were also seen in cirrhotic. It is likely that gallbladder motility abnormal control of cholecystokinin and motility in cirrhotic.

Key words: Gallbladder motility; Motilin; Cholecystokinin

© The Author(s) 1996. Published by Baishideng Publishing Group Inc. All rights reserved.

Hu WM, Yin CL, Lu ZY, Wu H. Relationship between gallbladder motor function and automatic function, fasting plasma levels of cholecystokinin and motilin in liver cirrhosis. *World J Gastroenterol* 1996; 2(Suppl1): 152 Available from: URL: <http://www.wjgnet.com/1007-9327/full/v2/iSuppl1/152.htm> DOI: <http://dx.doi.org/10.3748/wjg.v2.iSuppl1.152>

E- Editor: Liu WX



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>

