

Letter To The Editor: The Prevalence Of Hepatitis C Seropositive And Opisthorchiasis Among The Patients With Cholangiocarcinoma

A Pinyosophon, V Wiwanitkit

Citation

A Pinyosophon, V Wiwanitkit. *Letter To The Editor: The Prevalence Of Hepatitis C Seropositive And Opisthorchiasis Among The Patients With Cholangiocarcinoma*. The Internet Journal of Laboratory Medicine. 2004 Volume 1 Number 1.

Abstract

Cholangiocarcinoma is the malignancy of the biliary duct system, originating in the liver and terminating at the ampulla of Vater. It is a tumor that arises from the intrahepatic or extrahepatic biliary epithelium. The etiology of most bile duct cancers remains undetermined. Presently, these malignant biliary tract diseases are common cancerous diseases among the people in the Southeast Asia, with the world highest prevalence at the northeastern Thailand and Laos (1).

Concerning the pathogenesis, it has been suggested that longstanding inflammation, as with primary sclerosing cholangitis or chronic parasitic infection, could play a role by inducing hyperplasia, cellular proliferation, and, ultimately, malignant transformation (2). This carcinoma tends to grow slowly and to infiltrate the walls of the ducts, dissecting along tissue planes and leading to biliary tract obstruction.

Opisthorchiasis, an important intestinal parasite infection with high prevalence in tropical countries, is proposed to be linked to the very high incidence rate of cholangiocarcinoma in the Northeast of Thailand (3).

Liver fluke or *Opisthorchis viverrini* is the corresponding pathogen for this infection (3). In addition to opisthorchiasis, hepatitis virus-associated chronic hepatitis or cirrhosis has recently been suggested to be involved in the pathogenesis of cholangiocarcinoma (4, 5). Here, we reported the prevalence of hepatitis C seropositive among the Thai patients with cholangiocarcinoma.

We retrospectively reviewed on the medical records of all cholangiocarcinoma patients who admitted to King Chulalongkorn Memorial Hospital during year 1992 to 2001.

In each case, the cholangiocarcinoma had been diagnosed from the final histopathological results. A total of 30 cases with known hepatitis C serology and stool examination result were selected for further prevalence study. The data collated from the records also included the sex and age of each patient.

A total of 30 patients with cholangiocarcinoma, who admitted to King Chulalongkorn memorial Thailand during 1992 – 2001, with known hepatitis C serology was selected for further prevalence study. Of the total 30 cases (16 males and 14 females), the hepatitis C seropositive was found in 4 cases (2 males and 2 females, giving the total prevalence rate equaled to 13.3 % (12.5 % for male and 14.3 % for female). Concerning stool examination, *opisthorchis viverrini* eggs were detected in 2 cases (1 male and 1 female) giving the total prevalence rate equaled to 6.7 % (6.3 % for male and 7.1 % for female). All cases with opisthorchiasis also have hepatitis C seropositive.

One of the relating risk for development of cholangiocarcinoma is chronic infection. According to the recent study of Donato et al (4), HCV is a risk factor for cholangiocarcinoma. Here, we can demonstrate a high rate (13.3 %) of hepatitis C seropositive among the cholangiocarcinoma patients. This prevalence was about 5 times higher in comparison with the Thai local population (about 2.6 %)(6). These findings can state the high hepatitis C seropositive rate among the cholangiocarcinoma patients. In addition, the co-presentation of hepatitis C seropositive and opisthorchiasis in some cases also implies for a higher risk.

Since the hepatitis C infection is believed to be one of the risk to development of the cholangiocarcinoma and both

cholangiocarcinoma and hepatitis C infection are common in Thailand (1), the screening for hepatitis C, adding to the routine screening for liver fluke by stool examination, may be a useful strategy for decrease of the high rate of cholangiocarcinoma in Thailand. Further long-term study to study the relation of hepatitis C infection and cholangiocarcinoma is recommended.

References

1. Kullavanijaya P, Tangkijvanich P, Poovorawan Y. Current status of infection-related gastrointestinal and hepatobiliary diseases in Thailand. *Southeast Asian J Trop Med Public Health* 1999; 30: 96-105.
2. Torok N, Gores GJ. Cholangiocarcinoma. *Semin Gastrointest Dis* 2001;12:125-32
3. Jongsuksantikul P, Imsomboon T. The impact of a decade long opisthorchiasis control program in northeastern Thailand. *Southeast Asian J Trop Med Public Health* 1997; 28: 551 - 7
4. Donato F, Gelatti U, Tagger A, Favret M, Ribero ML, Callea F, Martelli C, Savio A, Trevisi P, Nardi G. Intrahepatic cholangiocarcinoma and hepatitis C and B virus infection, alcohol intake, and hepatolithiasis: a case-control study in Italy *Cancer Causes Control* 2001;12:959-64
5. Lu H, Ye MQ, Thung SN, Dash S, Gerber MA. Detection of hepatitis C virus RNA sequences in cholangiocarcinomas in Chinese and American patients. *Chin Med J (Engl)* 2000;113:1138-41
6. Boonmar S, Pojanagaroon B, Watanabe Y, Tanaka Y, Saito I, Miyamura T. Prevalence of hepatitis C virus antibody among healthy blood donors and non-A, non-B hepatitis patients in Thailand. *Jpn J Med Sci Biol* 1990;43:29-36

Author Information

Arpha Pinyosophon

Department of Laboratory Medicine, Faculty of Medicine, Chulalongkorn University

Viroj Wiwanitkit

Department of Laboratory Medicine, Faculty of Medicine, Chulalongkorn University