

# Family history of liver cancer increases risk of developing the disease

24 April 2012

A family history of liver cancer is reported to increase risk of developing hepatocellular carcinomas (HCC), independent of hepatitis according to findings published in the May issue of *Hepatology*, a journal of the American Association for the Study of Liver Diseases. The study also shows 70-fold elevated risk of HCC in those with liver cancer in the family and markers for hepatitis B (HBV) or hepatitis C (HCV).

Liver cancer ranks sixth in incidence and the third cause of mortality worldwide. According to the [World Health Organization](#) (WHO) liver cancer was responsible for 700,000 deaths in 2008, with HBV and [HCV](#) accounting for 78% of all cases of HCC. A vaccine for HBV has been available since 1982; however prior studies have shown familial clustering of HCC in East Asia where HBV is common. While medical evidence reports family history to be related to HCC risk, little is known of this relationship in non-Asian populations.

"There is a high incidence of liver cancer in southern Italy which is likely a result of a higher frequency of HCV in this area," explains Professor Carlo La Vecchia from the Istituto di Ricerche Farmacologiche "Mario Negri" and the University of Milan in Italy. "Our study investigated the relationship between family history and liver cancer in a Western population."

The case-control study was carried out between January 1999 and July 2002, and included 229 cases of HCC and 431 hospital controls. HCC patients ranged in age from 43 to 84 years, providing survey information and [blood samples](#). The control group included patients admitted to hospital for conditions not related to tumors. Analysis of data on family history and liver cancer updated to April 2011 was also performed.

Results show that 75% of the cases and 11% of controls showed evidence of HBV and HCV infection. Family history of liver cancer was

associated to HCC risk after adjusting for chronic HBV and HCV. Compared to subjects without family history of liver cancer and no chronic HBV and HCV, researchers reported an odds ratio of 73 for those with both risk factors, indicating a 70-fold increased risk of developing HCC.

"Our findings confirm that individuals with a positive family history of liver cancer have three times higher risk of developing HCC," notes Professor La Vecchia. "Monitoring individuals with family history, particularly those with hepatitis markers, could help to identify HCC at an earlier stage, and hence potentially reduce mortality from HCC."

**More information:** Family History of Liver Cancer and Hepatocellular Carcinoma." Federica Turati, Valeria Edefonti, Renato Talamini, Monica Ferraroni, Matteo Malvezzi, Francesca Bravi, Silvia Franceschi, Maurizio Montella, Jerry Polesel, Antonella Zucchetto, Carlo La Vecchia, Eva Negri and Adriano Decarli. *Hepatology*, Published Online: March 21, 2012 ([DOI: 10.1002/hep.24794](https://doi.org/10.1002/hep.24794)); Print Issue Date: May 2012.

Provided by Wiley

APA citation: Family history of liver cancer increases risk of developing the disease (2012, April 24)  
retrieved 23 April 2021 from  
<https://medicalxpress.com/news/2012-04-family-history-liver-cancer-disease.html>

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