

Risk of Primary Liver Cancer in Patients with Pyogenic Liver Abscess: A Population-base Cohort Study

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Abstract

Primary liver cancer arise in patients with pyogenic liver abscess are extremely rare and only were reports by few literatures. Our hypothesis is the damaged hepatic parenchymal lesion are associated with developing primary liver cancer in patients after pyogenic liver abscess. This study evaluated the risk of primary liver cancer in patients with pyogenic liver abscess after more than one year follow-up using population-based insurance claims.

Methods

From the claims data of Taiwan National Health Insurance, a cohort of 11396 patients with pyogenic liver abscess were newly diagnosed from 2000-2005. A reference cohort of 113960 persons without pyogenic liver abscess was selected from the same dataset

frequency matched for age, sex and index year. The risk of primary liver cancer (International Statistical Classification of Disease and Related Health Problems, 9th edition, codes 155.0 and 155.1) in follow-up to 2009 were estimated for both cohorts. The effects of the risk factors on the incidence of primary liver cancer were evaluated with Cox's proportional hazard regression models.

Results:

The primary liver cancer incidence was 2-fold greater in PLA patients than in reference cohort (2.84 vs. 1.36 per 1000 person-years). The risk of primary liver cancer was attenuated after adjusting clinical associated risk factors with A hazard ratio (HR) of 1.22 (95% confidence interval (CI) = 1.01-1.48).

Conclusions:

Patients with pyogenic liver abscess increased the risk of primary liver cancer in the present long-term cohort study. This study highlight the necessary close follow-up in patients with pyogenic liver abscess.