## HIGHER LEVEL OF SERUM GLUTAMIC PYRUVIC TRANSAMINASE ASSOCIATED WITH INCREASED LIVER CANCER RISKS IN PATIENTS WITH TYPE 2 DIABETES ENROLLED IN NATIONAL DIABETES CARE MANAGEMENT PROGRAM

第二型糖尿病人 GPT 較高者會增加罹患肝癌的危險性

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**Objective:** Serum glutamic pyruvic transaminase frequently is considered to be a specific indicator of liver injury and is used to screen patients for evidence of liver disease. However, what is still unclear is whether this transaminase is also an important predictor of liver cancer incidence in Chinese patients with type 2 diabetes in Taiwan. The aim of the study was to examine whether serum glutamic pyruvic transaminase (SGPT) was associated with liver cancer incidence in elders with type 2 diabetes.

Methods: A retrospective cohort study consisted of 20,354 patients with type 2 diabetes aged 30 and over enrolled in National Diabetes Care Management Program before 2004 was used in Cox's proportional hazard regression model.

**Results:** The mean follow-up period was 7.9 years. The incidence rates of liver cancer were 1.93 and 9.75 per 1000 person years in groups of SGPT (<40 u/l) and SGPT (≥40 u/l), respectively. After adjusting for HbA1c, fasting plasma glucose, acute alcoholic hepatitis, hepatitis B and C infections and other risk factors, SGPT was independently associated with liver cancer incidence, and the hazard ratio for SGPT ≥40 u/l were 4.44 (3.69, 5.34). Additional significant

factors included male gender (1.31, 1.08-1.58), acute alcoholic hepatitis (20.32, 4.80-86.00), alcoholic cirrhosis of liver (4.66, 1.13-19.32), hepatitis B infection (2.54, 1.39-4.64), and hepatitis C infection (3.52, 2.38-5.21).

**Conclusions:** Our findings suggest liver function may become a measure in clinical practice for the goal of care management and liver cancer prevention of these patients.

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