**Knowledge, Attitude, and Barriers on Hepatocellular Carcinoma Surveillance in High Risk Thai Patients**

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**Background:** In Thailand, hepatocellular carcinoma (HCC) is the most frequent cause of cancer deaths in males. Hence, diagnosing HCC at an early stage is crucial to cure the disease and reduce mortality rate. Our previous study found that only 23% of HCC patients receive standard HCC surveillance program.

**Objective:** We aimed to investigate patients’ barriers resulting in the low HCC surveillance rate.

**Methods:** This cross sectional study was conducted at a university hospital between April and August 2017. Participants were patients with cirrhosis and/or chronic viral hepatitis B infection who were seen at Gastroenterology Clinic. Participants were invited to complete a questionnaire. There were four parts of the questionnaire: 1) demographic information, 2) 14 yes-or-no questions on knowledge about HCC, 3) patients’ attitudes toward HCC surveillance, and 4) perceived obstacles causing low HCC surveillance rate. Their knowledge, attitudes, and obstacles for HCC surveillance were assessed. Factors associated with patients’ knowledge were identified using linear regression analysis.

**Results:** There were 194 of 200 patients who completed the questionnaire (Response rate 97%). The total mean percentage score of knowledge about HCC surveillance was 50.6%. The lowest mean percentage score (33.9%) was knowledge about optimal tools for HCC surveillance. Most participants (86.1%) misunderstood that alpha-fetoprotein level was abnormally high in all patients with early stage HCCs. Regarding attitudes about HCC surveillance, most patients (95.9%) agreed that having knowledge about HCC surveillance was crucial for early detection of HCC. They also had a concern that they could have a risk for developing HCC (61.3%) and might die from HCC (45.9%). Interestingly, the most important obstacle for HCC surveillance was very long queues (50%) and long distance from their houses to hospital (48.5%). A factor significantly associated with having more knowledge was higher income. Patients who had monthly income of 20,001-50,000 baht had 10% higher knowledge score than those with monthly income below 10,000 baht (P = 0.048).

**Conclusion:** Patients who are at-risk for HCC have a relatively little knowledge about HCC surveillance. Measures for improving patients’ knowledge should be implemented. Importantly, HCC surveillance program should be available in local hospitals in order to increase the HCC surveillance rate in high-risk individuals.

**Keywords:** Liver cancer, Screening, Surveillance, Cirrhosis, Early detection