

## The use of single agent sorafenib in the treatment of advanced hepatocellular carcinoma patients with underlying Child-Pugh B liver cirrhosis

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**Background:** Hepatocellular carcinoma (HCC) is a common malignancy especially in patients with chronic liver disease. It often presents late. Sorafenib is the only systemic treatment for advanced HCC proven to have survival benefit. Previous studies included predominantly patients with Child-Pugh A liver cirrhosis, and the use of sorafenib in patients with poor liver function is controversial. This study aimed to explore the efficacy and tolerability of using sorafenib in Child-Pugh B patients.

**Methods:** Advanced HCC patients treated with sorafenib at Queen Mary Hospital, Hong Kong were analysed retrospectively. Treatment outcomes were analysed according to their respective Child-Pugh status.

**Results:** The baseline demographic parameters were comparable between 108 Child-Pugh A and 64 Child-Pugh B patients. Both clinical benefit rate (21.3% vs 25.0%;  $P=0.58$ ) and progression free survival (median, 3.2 vs 2.8 months;  $P=0.31$ ) were similar between the two groups. The overall survival was significantly longer in Child-Pugh A patients (median, 6.1 vs 3.9 months;  $P=0.009$ ). The most common grade 3/4 adverse events (AEs) were hand-foot-syndrome (13.5%), diarrhoea (9.9%), and rash (7.0%). Grade 3/4 leukopenia, thrombocytopenia, and anaemia occurred in 2.9%, 5.3%, and 8.8% of the patients, respectively. Child-Pugh A and B patients experienced similar incidence of most AEs. Nonetheless, Child-Pugh B patients experienced more anaemia (71.4% vs 50.5 %;  $P=0.01$ ), gastrointestinal bleeding (15.6% vs 5.6%,  $P=0.05$ ) and hepatic encephalopathy (10.9% vs 1.9%;  $P=0.01$ ).

**Conclusions:** Child-Pugh A and B patients tolerated sorafenib similarly and derived comparable clinical and progression-free survival benefit. Child-Pugh B patients were more susceptible to developing cirrhotic complications, thus vigilant surveillance is needed.

## Non-traditional biomarkers in the prediction of cardiovascular events among Chinese

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**Introduction:** Biomarkers of subclinical systemic chronic inflammation are increasingly recognised as a key player in atherosclerosis. C-reactive protein, measured using high-sensitivity assay (hsCRP), is the most promising inflammatory marker in predicting the risk of cardiovascular diseases (CVD). As obesity is associated with dysregulated expression of various adipokines, either pro-inflammatory or anti-inflammatory, such adipokines may also serve as non-traditional biomarkers for the accelerated atherosclerosis associated with obesity. In this prospective cohort study, we examined the predictive value of a variety of non-traditional biomarkers for CVD among Hong Kong Chinese, and determined if they would enhance the predictive value in conjunction with the traditional markers.

**Methods:** Subjects were recruited from the Hong Kong Cardiovascular Risk Factors Prevalence Study 2 (CRISPS 2) cohort. Those with known cardiovascular disease(s) were excluded. Baseline serum levels of hsCRP, IL-6, soluble tumour necrosis factor alpha receptor 2 (sTNF- $\alpha$ R2; a surrogate marker of TNF- $\alpha$ ), and adiponectin were determined. Subjects were followed prospectively for 6 years.

**Results:** A total of 1776 subjects were included in the final analysis. The cumulative incidence of CVD was 85 (4.8%). At baseline, subjects with incident CVD had higher proportions of male gender and current/former smoker. They were older, and had higher body mass index (BMI), waist circumference (WC), blood pressure (BP), HOMA-IR, and fasting glucose levels (all  $P<0.001$ ), compared to those who did not develop CVD (non-CVD). They also had higher LDL-cholesterol and triglycerides, and lower HDL-cholesterol levels. Among the non-traditional biomarkers, subjects with incident CVD had higher baseline levels of hsCRP (1.50 vs 0.69 mg/L), IL-6 (0.83 vs 0.56 pg/mL) and sTNFR2 (2276 vs 1879 ng/mL) [all  $P<0.001$ ], but similar adiponectin levels, compared to non-CVD subjects. Cox proportional hazards regression showed that baseline hsCRP, IL-6, and sTNFR2 were independent predictors of incident CVD even after controlling for the established risk factors.

**Conclusion:** In this 6-year prospective study, hsCRP, IL-6, and sTNFR2 were independent predictors of incident CVD in Hong Kong Chinese, in addition to the established CVD risk factors. Measurements of these non-traditional biomarkers may allow early CVD risk stratification among these low-risk, apparently healthy subjects.

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