Sarcopenia as Baseline Prognostic Predictor in Patients with Hepatocellular Carcinoma Undergoing Hepatic Resection: A Preliminary Report

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Background: Sarcopenia or low skeletal muscle mass is associated with poor outcomes in patients with cirrhosis and several malignancies including hepatocellular carcinoma (HCC), especially in advanced stage. There are scanty data of sarcopenia in patients with early stage HCC.

Objective: This study aimed to explore the impact of sarcopenia on prognosis of patients with early stage HCC who underwent hepatic resection.

Methods: A retrospective cohort study included patients with early stage HCC who underwent hepatic resection in Siriraj Hospital during 2008-2012. Those patients were followed until 5 years after surgery or death. Skeletal muscle index was measured by computed tomography at baseline before hepatic resection. Sarcopenia was analyzed with disease outcomes.

Results: This is a preliminary report of 42 enrolled patients. Two-third had cirrhosis (mostly Child Pugh A), while 62% were chronic hepatitis B and 14% had sarcopenia. The 5-year recurrent rate was 42.9%. The 5-year mortality was 16.7%. In a univariate analysis, alcoholic cirrhosis (HR 3.66; p=0.044), free margin section (HR 0.21; p=0.046), and tumor microvascular invasion (HR 3.54; p=0.013) were significantly associated with tumor recurrence. Sarcopenia at baseline was not associated with recurrence (HR 0.28; p=0.14) and mortality (HR 0.95; p=0.95).

Conclusion: Sarcopenia is not associated with tumor recurrence and mortality in patients with early stage HCC undergoing hepatic resection.

Keywords: Sarcopenia, Hepatocellular carcinoma, HCC, Hepatic resection, Prognostic predictor