ABSTRACT

Background. Hepatocellular carcinoma (HCC), is the third leading cause of death from cancer worldwide which has close relation with angiogenesis process and has poor prognostic due to high recurrence rate and metastasis. The spesific biomarker of this angiogenesis process are Alpha fetoprotein (AFP) and VEGF (Vascular Endothelial Growth Factor). In general, consistently elevated serum AFP levels greater than 400 ng/ml are indicative HCC. Unfortunatelly, AFP serum concentrations do not correlate well with the prognosis values of HCC such as tumor size, stage, or disease progression, and ethnic variability may also exist. Another angiogenic marker which is sVEGFR2, where the concentrations of these factors show a good correlation with the aggressiveness of these tumors in various organs.

Objective. The objective of this study is to find correlation between sVEGF-R2 and Alpha Fetoprotein serum level in hepatocellular carcinoma patient.

Methods. The study is an observational cross-sectional study with consecutive sampling, carried out in the internal medicine polyclinic and in the internal medicine ward of Dr. Sardjito Hospital, Yogyakarta. All subjects that fulfilled the inclusion criteria were obtained their medical records, and the results were then analyzed.

Resuts. The spearman's Rho correlation test yield p 0.502; r 0.144 and Mann Whitney test yield p 0.460. This indicates poor correlation and statistically insignificant between both sVEGF-R2 and Alpha Fetoprotein serum level in hepatocellular carcinoma patient.

Conclusion. There is a poor correlation and insignificance observed between sVEGF-R2 and Alpha Fetoprotein serum level in hepatocellular carcinoma patient.

Keywords: hepatocellular carcinoma, Alpha Fetoprotein, sVEGF-R2