



Polymorphisms of vascular endothelial growth factor on prognosis in hepatocellular carcinoma patients receiving transcatheter arterial chemoembolization treatment

J. Song, L.Z. Wang, X. Li, T.P. Jiang, T.Z. An, M. Xu, X.P. Wu and S. Zhou

Department of Radiology, Affiliated Hospital of Guiyang Medical College, Guiyang, China

Corresponding author: S. Zhou
E-mail: wlz_wlz66@163.com

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ABSTRACT. We conducted a cohort study to investigate the prognostic significance of vascular endothelial growth factor (VEGF) polymorphisms in hepatocellular carcinoma (HCC) patients after transcatheter arterial chemoembolization (TACE). In total, 156 patients with histologically confirmed HCC within 2 months were collected from January 2007 to January 2008. The genotypes of *VEGF*-2578C/A, -1154G/A, -634C/G, and -1498T/C were determined from blood extracted using a blood kit on a 384-well plate. The survival rate at 5 years was 55.47%. Multivariate analysis revealed that only tumor-node-metastasis (TNM) stage, metastasis, and the *VEGF*-2578 AA and -1154 AA genotypes were independent prognostic factors. Patients with TNM stage III-IV and metastasis showed a greatly increased risk of death from HCC, with hazard ratios (HRs) [95% confidence interval (CI)] of 3.64 (1.67-6.79) and 2.91 (1.30-6.27), respectively. Moreover, the *VEGF*-2578 AA and -1154 AA genotypes showed a significantly increased risk of death compared with the wild-type genotype (HR

= 3.65, 95%CI = 1.35-11.13; HR = 7.13, 95%CI = 1.46-65.8). These results will be helpful for predicting clinical outcomes of HCC patients.

Key words: Clinical outcome; Hepatocellular carcinoma; Polymorphism; Vascular endothelial growth factor