



Effect of polymorphisms of vascular endothelial growth factor on prognosis in osteosarcoma patients

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ABSTRACT. We investigated the association between vascular endothelial growth factor (VEGF) gene +1612G/A, -634C/G, and +936G/C and the clinical outcome of osteosarcoma. Genomic DNA was isolated from blood samples, and 3 VEGF gene polymorphisms (+1612G/A, -634C/G, and +936G/C) were analyzed using polymerase chain reaction-restriction fragment length polymorphism. Of the 194 patients, 82 patients (42.27%) showed a good response to chemotherapy, while 73 (37.63%) died during the follow-up period. When comparing good and poor responders, we observed no significant association between the VEGF +1612G/A, -634G/C, and +936T/C polymorphisms and clinical outcome of osteosarcoma patients. According to Cox regression analysis, the VEGF +1612A/G, -634G/C, and +936T/C polymorphisms did not statistically significantly increase the risk of overall survival of patients with osteosarcoma. This study showed that VEGF +1612A/G, -634G/C, and +936T/C polymorphisms were not

related to the response to chemotherapy and clinical outcome of osteosarcoma patients.

Key words: Chemotherapy; Clinical outcome; Osteosarcoma; Vascular endothelial growth factors