

Abstract

Vascular endothelial growth factor (VEGF) and basic fibroblast growth factor (bFGF) are important proteins involved in the angiogenesis (the growth of blood vessels from pre-existing vasculature). Angiogenesis and lymphangiogenesis are important in the proliferation and survival of the malignant hematopoietic neoplasms, including non-Hodgkin's lymphomas (NHLs). Vascular endothelial growth factor (VEGF) and basic fibroblast growth factor (bFGF) play an important role in the initiation of angiogenesis. Both VEGF and bFGF have been reported to have prognostic significance in NHL. The present study aimed to determine an association between the VEGF and bFGF gene polymorphisms and disease susceptibility. The present study included 75 NHL patients and 150 healthy controls. Genotyping of VEGF +936 C>T and bFGF -921 G>C were done by PCR-RFLP technique. The frequency of VEGF +936 C>T polymorphic genotypes in NHL patients was 21.3% for the heteromutant genotype (CT) and 1.3% for the homomutant genotype (TT). There was no statistical difference in the distribution of the different genotypes of VEGF between NHL patients and controls. As for bFGF, the frequency of the heteromutant genotype (CG) was 45.3% and the homomutant genotype (GG) was 8% in NHL patients. There was no statistical difference in the distribution of the different genotypes of bFGF between NHL patients and controls. This study revealed VEGF and bFGF gene polymorphism did not confer genetic susceptibility to NHL among Egyptians.

Key words: VEGF, bFGF , NHL, PCR-RFLP & Egypt.