**Abstract:** Introduction: Visceral leishmaniasis (VL) is an infectious disease caused by various species of Leishmania. *Leishmania infantum* is known to be associated with VL in Iran. Different factors are considered as risk factors for VL. The aim of this study is to determine the frequency of mannose-binding lectin (MBL) gene and promoter variants and seeking the correlation between MBL alleles and developing of VL.

Method: Blood samples of 58 patients with confirmed VL were compared with blood samples of 120 normal controls from Azarbaijan population of Iran. MBL genotypes were investigated using polymerase chain reaction and restriction fragment length polymorphism techniques.

Results: Frequency of alleles with high MBL concentration was higher in VL patients than in controls (P = 0.03), but no differences were demonstrated when other alleles were compared between healthy individuals and patients.

Conclusion: Low-expression MBL genotype can be associated with protection against VL cause by *Leishmania infantum*. In addition, wild type alleles along with high MBL level can be considered as a risk factor for confirming visceral leishmaniasis.