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Association of polymorphisms near the FOXC2 gene with the risk of varicose veins in ethnic Russians

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Abstract

© The Author(s) 2015.Objective: To investigate the association of polymorphisms located near the FOXC2 gene with the risk of varicose veins in ethnic Russians. Methods: Allele, genotype, and haplotype frequencies were determined in the sample of 474 patients with primary varicose veins and in the control group of 478 individuals without a history of chronic venous disease. Results: Polymorphisms rs7189489, rs4633732, and rs1035550 showed the association with the increased risk of varicose veins, but none of the observed associations remained significant after correction for multiple testing. Haplotype analysis revealed the association of haplotype rs7189489 C–rs4633732 T–rs34221221 C–rs1035550 C–rs34152738 T–rs12711457 G with the increased risk of varicose veins (OR = 2.67, P = 0.01). Conclusions: Our results provide evidence that the studied polymorphisms do not play a major role in susceptibility to varicose veins development in the Russian population.

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Keywords

association, FOXC2, Russians, single nucleotide polymorphism, Varicose veins