Role of sGC-dependent NO signalling and myocardial infarction risk.

The NO/cGMP pathway plays an important role in many physiological functions and pathophysiological conditions. In the last few years, several genetic and functional studies pointed to an underestimated role of this pathway in the development of atherosclerosis. Indeed, several genetic variants of key enzymes modulating the generation of NO and cGMP have been strongly associated with coronary artery disease and myocardial infarction risk. In this review, we aim to place the genomic findings on components of the NO/cGMP pathway, namely endothelial nitric oxide synthase, soluble guanylyl cyclase and phosphodiesterase 5A, in context of preventive and therapeutic strategies for treating atherosclerosis and its sequelae.