Clinical aspects of assessment of endothelial function

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Abstract:
Prevention and treatment of atherosclerosis is an important priority. Measurement of endothelial function has been reported as a useful tool for atherosclerosis research. Endothelium appear to integrate the injury of commonly known risk factors and others, genetic and environmental as yet undiscovered. The assessment of endothelium-dependent vasodilation has emerged as indicator of endothelial health. Invasive methods examine coronary or brachial artery vasomotion in response to infusion of acetylcholine. Noninvasive ultrasound assessment of flow-mediated vasodilation (FMD) of peripheral artery is more often used. However, despite its wide-spread use, there are technical and interpretive limitations of this technique. Recent studies have shown that the severity of endothelial dysfunction relates to cardiovascular risk. Endothelial function might be also used to monitor the effectiveness of risk reduction therapy.
This article will review the growing literature in an effort to evaluate methods of assessment of endothelial function and its clinical utility.

Key words:
endothelial function, acetylcholine, flow-mediated dilation, atherosclerosis, prognosis