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Review

Adipose tissue, inflammation and endothelial dysfunction

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Abstract:

During the last decade, white adipose tissue was recognized to be an active endocrine organ and a source of many proinflammatory cytokines, chemokines, growth factors and complement proteins. Many of these adipokines seem to play an important role in the pathogenesis of obesity-related diseases including accelerated atherosclerosis, arterial hypertension and some glomerulopathies. As endothelial dysfunction is one of the early stages of atherosclerosis, it is reasonable to consider that substances secreted by adipose tissue may influence directly or indirectly (for instance by induction of microinflammation) the function of endothelial cells. The aim of this review is to summarize the evidences and hypotheses concerning the role of adipokines in the pathogenesis of endothelial dysfunction.

Key words:

adipose tissue, leptin, adiponectin, interleukin-6, plasminogen activator inhibitor-1, tumor necrosis factor-α