

Adipose tissue represents a multi-functional endocrine organ. Obesity may lead to the increased release of proinflammatory factors and adhesion molecules from adipose tissue, thus playing an important role in the development of atherosclerosis. Recent research studies were focused on the mechanisms of the endothelial dysfunction, low-grade inflammation and adipose tissue endocrine function dysregulation, and their mutual relationships. These processes are of a great interest due to their clinical relevance and increasing numbers of patients suffering from cardiovascular diseases or being at high risk of early atherosclerosis progression. Exact mechanisms and interrelationships of these factors are yet to be fully clarified.

(...)

Results of this project may represent another step on the way to the detailed explanation of the mechanisms and relationships between adipose tissue endocrine function or dysfunction and atherosclerosis development. Better understanding and ability to prevent or treat the negative metabolic effects of adipose tissue-derived molecules would be of great importance for numbers of patients at high risk of cardiovascular diseases.