

Endocrine Function of Adipose Tissues during the Immune Response in Elderly Patients with Hyperuricemia

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Abstract

Complications of inflammatory reactions remain a significant challenge in the care of elderly patients, leading to functional limitations and generating additional costs. Therefore, research on easily quantifiable markers of inflammation is warranted as their assessment allows for a faster and more accurate determination of the mechanism of the immune response. Previously published research results on adipokines, hormonal substances of adipose tissue, suggest their influence on the immune response and their significance as potential markers of inflammation. However, there is a lack of data regarding the use of adipokines as markers of inflammation in elderly patients, who are characterized by significant population differences in nutritional status, functional status, and concentrations of substances with proven effects on immune responses. The aim of this study is to evaluate adiponectin, a selected adipokine with a relatively well-understood mechanism of action and easy to quantify, as a potential marker of rapidly evolving inflammation, while also considering the interrelationships of individual inflammatory markers and the impact of the inflammatory response on patient function. 77 hospitalized elderly patients were examined using selected geriatric scales. Serum concentrations of laboratory markers such as adiponectin, interleukin-6, interleukin-1 β , and uric acid were assessed. Based on the obtained results, statistical correlations between inflammatory markers and the level of functioning in elderly patients were determined, the interrelationships between selected inflammatory markers were determined, and adiponectin was assessed as a potential marker of acute inflammatory response. The results were summarized in graphs and tables with appropriate discussion.

Keywords

Geriatrics, inflammatory response, adipokines, interleukins.