

Original article

Functional state of the cardiovascular system in patients with multiple myeloma

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ABSTRACT

he functional state of the cardiovascular system in patients with multiple myeloma is a topic of interest due to the potential impact of the disease and its treatments on cardiovascular health. This article aims to explore the functional state of the cardiovascular system in patients with multiple myeloma, including the prevalence of cardiovascular complications, the effects of disease-related factors, and the influence of treatment modalities. Multiple myeloma is a hematological malignancy characterized by the proliferation of abnormal plasma cells. It can affect the cardiovascular system through various mechanisms, including the production of pro-inflammatory cytokines, direct infiltration of cardiac tissues, and the adverse effects of chemotherapy and radiation therapy. These factors can contribute to the development of cardiovascular complications, such as cardiac dysfunction, arrhythmias, thromboembolism, and hypertension.

Furthermore, treatment modalities used in multiple myeloma, such as corticosteroids, proteasome inhibitors, and immunomodulatory drugs, can have cardiotoxic effects and further impact the cardiovascular system. The cumulative cardiotoxicity from long-term treatments may lead to the development or exacerbation of cardiovascular diseases. Assessing the functional state of the cardiovascular system in patients with multiple myeloma involves various diagnostic tools, including echocardiography, electrocardiography, cardiac biomarkers, and functional exercise testing. Regular monitoring and early detection of cardiovascular complications are crucial for appropriate management and intervention.

In conclusion, patients with multiple myeloma are at an increased risk of cardiovascular complications due to disease-related factors and treatment modalities. Understanding and evaluating the functional state of the cardiovascular system in these patients is essential for timely interventions, optimizing treatment decisions, and improving overall patient outcomes.

Keywords: *Multiple myeloma, cardiovascular system, cardiovascular complications*

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