

ROLE OF IMMUNOHISTOCHEMICAL VARIANTS IN MULTIPLE MYELOMA

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Abstract

During the study of bone marrow samples of patients with suspected multiple myeloma (MM), it is advisable to look for markers such as CD138, CD56, and CD117 to confirm the diagnosis. Expression of these markers in plasma cells is a hallmark of MM, helping to differentiate it from other types of plasma disorders. In addition to studying immunohistochemical variants of MM, it is important to investigate cytogenetic abnormalities in patients with this disease. Cytogenetics involves the study of chromosomal abnormalities in cells that may play an important role in the diagnosis, prognosis, and treatment of MM. One of the most common cytogenetic abnormalities seen in MM is the translocation of the immunoglobulin heavy chain gene on chromosome 14, known as t. This translocation is associated with poor prognosis and resistance to standard therapy. Other cytogenetic abnormalities, such as deletion of chromosome 17p or amplification of chromosome 1q, can also affect the clinical course of a given pathology and influence treatment outcomes. Thus, expression of these markers may provide valuable information about disease aggressiveness and aid in treatment decisions.

The aim of the study is to assess the immunohistochemical profile and cytogenetic disorders in patients with multiple myeloma living in Uzbekistan.

Materials and methods. The study included 208 patients with multiple myeloma who applied for diagnosis and treatment at the Republican Specialized Scientific and Practical Hematological Medical Center of the Ministry of Health of the Republic of Uzbekistan.

Results and their discussion. Of the 208 patients examined, 128 were diagnosed with IgG myeloma, accounting for 61.5% of cases. In this group, 65 patients were male and 63 female, highlighting the equal distribution of this variant among the sexes. Our data, along with the existing literature, indicate that IgG myeloma is the most common immunohistochemical variant in our region.

The study also identified IgA myeloma as the second most common variant, affecting 29 of 208 patients (13.9%). Although IgA myeloma is not as common as IgG myeloma, it still accounts for a significant proportion of MM cases. This finding highlights the importance of considering the immunohistochemical profile of the disease when making treatment decisions.

Conclusion. The presence of cytogenetic abnormalities in MM patients can have significant implications for their prognosis and treatment. Specific genetic changes may indicate a higher risk of disease progression or resistance to standard therapy.