International Journal of Health Science

Acceptance date: 10/12/2024

MULTIPLE MYELOMA: AN INCURABLE AND LIMITING DISEASE

Luiz Fernando Bueno Azeredo D'avila

Ana Eduarda Covatti

Catarina Cardoso de Almeida

George Washington Alves Gomes

Gabriel Afonso Miguel Meira e Silva

Eduardo Sousa Amancio da Costa

Maria Rita Dias Carvalho

Álvaro Caio Roque Souza

Bruna Teodoro Faria

Vitor Henrique Lages Ferreira



All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0). **Keywords:** Diagnosis; Myeloma, multiple; Therapy.

INTRODUCTION

Multiple myeloma (MM) is a progressive and incurable neoplasm of plasma cells, characterized by the formation of paraproteins, bone marrow replacement and osteolysis. The result is severe anemia, kidney failure, recurrent infections and bone damage. Early diagnosis and appropriate treatment result in a higher survival rate. Treatment involves the use of chemotherapy/radiotherapy, autogenous transplantation, heterogeneous transplantation or syngeneic stem cell transplantation and, in the last instance, palliative care.

METHODOLOGY

This study is a systemic literature review based on 10 articles published between 2005 and 2024 in the Scielo and PUBMED databases. To carry out this review, a search was conducted using the descriptors "Multiple myeloma", "diagnosis", "therapy". After initial screening, 45 articles were selected for detailed analysis.

RESULTS

MM results from the uncontrolled proliferation of malignant plasma cells that produce monoclonal immunoglobulins (M protein). This leads to dysfunction of multiple organs, including the bones, kidneys and immune system. The interaction between plasma cells and the bone marrow microenvironment con-

tributes to the development of osteolytic bone lesions, immunosuppression and tumor progression. When two or more of the following criteria are observed in clinical practice: serum or urine presence of monoclonal immunoglobulin, excess plasma cells in the bone marrow and bone lesions, a diagnosis of MM can be made. However, the disease is discovered by chance when laboratory tests reveal anemia and hyperproteinemia in some asymptomatic patients. Diagnostic imaging is usually carried out using X-rays, computed tomography and magnetic resonance imaging. The treatment of MM is based on the staging of the disease. The impact of MM on quality of life is significant, due to the chronic and progressive nature of the disease and the side effects of the treatments. Fatigue, bone pain and metabolic complications affect patients' physical and psychological functionality. Studies highlight the need for multidisciplinary support, including pain management, psychological support and physical rehabilitation.

CONCLUSION

MM is an incurable and limiting disease. Although therapeutic advances have prolonged survival and improved clinical outcomes, relapse is inevitable, and the impact on quality of life is substantial. Therefore, there is a need for greater investment and dissemination about MM in the medical and lay media, promoting personalized approaches and strategies to minimize side effects, seeking to improve both survival and quality of life for patients.

REFERENCES

1. Palumbo A, et al. Multiple Myeloma. N Engl J Med. 2011;364(11):1046-1060.

4. Kumar SK, et al. Role of CAR-T Therapy in Refractory Multiple Myeloma. Clin Lymphoma Myeloma Leuk. 2022;22(4):231-239.

^{2.} Rajkumar SV. Multiple Myeloma: 2022 Update on Diagnosis, Risk-Stratification, and Management. *Am J Hematol.* 2022;97(1):108-127.

^{3.} Mateos MV, et al. Targeting Immunotherapy in Multiple Myeloma: Update 2023. Nat Rev Clin Oncol. 2023;20(6):347-363.