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CHAPTER 16

Multiple myeloma: A literature review

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ABSTRACT

Multiple myeloma (MM) is a malignant neoplasm characterized by clonal proliferation of plasma cells in the bone marrow and production of monoclonal immunoglobulin, the changes caused by the disease are related to progressive bone destruction, kidney failure, suppression of hematopoietic and higher risk of infections. It is the second most common hematological neoplasm, being slightly more frequent in men.

Keywords: Multiple myeloma, Clinical and laboratory characteristics, Prognosis.

INTRODUCTION

Multiple myeloma (MM) is a malignant neoplasm characterized by clonal proliferation of plasma cells in the bone marrow and production of monoclonal immunoglobulin, the changes caused by the disease are related to progressive bone destruction, kidney failure, suppression of hematopoietic and higher risk of infections. It is the second most common hematological neoplasm, being slightly more frequent in men.

OBJECTIVES

To describe the clinical and laboratory characteristics and prognosis of patients with MM.

METHODOLOGY

A literature review was carried out in which articles related to the theme proposed in the scientific databases of SciELO, LILACS and MEDLINE/PubMed, in the period 2007 -2022, in English and Portuguese, were selected. The following descriptors were used in the search: Multiple myeloma; clinical and laboratory characteristics; prognosis.

DISCUSSION

Clinical manifestations are related to clonal cell proliferation in the bone marrow and kidney damage. Bone pain is a common symptom at diagnosis and indicates probable disease. In some cases, a reduction in the patient's height secondary to vertebral collapses may be noticed. Weakness is observed and is related to the anemic syndrome, in addition to weight loss that may reflect a possible advanced stage of the disease. Regarding laboratory results, clonal plasmacytosis greater than or equal to 10% in the bone marrow, anemia, renal failure with high creatinine values, and hypercalcemia may be perceived. Less frequently, leukopenia and thrombocytopenia may be observed. In serum protein electrophoresis, according to the literature, the most frequent type of monoclonal protein is IgG, followed by the light chain type. Conventional skeletal radiographs show alterations in most of the patients studied, and the most common involvement was the presence of osteolytic lesions, which are characteristic of this neoplasm. Prognosis depends on patient characteristics, stage of disease, characteristics of neoplastic cells, and accessibility and response to therapy. More recently , a new and simple staging system, the International Staging System (ISS), based on the values of b2 microglobulin and serum albumin, was validated.

CONCLUSION

Several prognostic factors have been identified in patients with myeloma. With the emergence of new therapeutic options, it is essential to recognize clinical or biological parameters that guide the best choice.

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