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Title

PLASMA CELL LEUKEMIA: ABOUT 3 CASES

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Introduction

Plasma cell leukemia is a malignant proliferation of plasma cells in bone marrow and peripheral blood. Defined by the presence of more than 20% plasma cells in the circulating blood. There are two variants: the primitive form, observed de novo in patients with no previous evidence of multiple myeloma, whereas the secondary form; leukemic transformation of a previously known multiple myeloma.

Methodolgy

We report three cases of primary plasma cell leukemia from a department of Internal Medicine and Onco-Hematology.

Results

Observation 1:

38-year-old male patient with a history of chronic cannabism, admitted initially for tumor syndrome with renal failure, anemia and bone pain. Biological workup revealed an inflammatory syndrome with elevated ESR and CRP, normochromic normocytic anemia with 23% plasma cells in peripheral blood. Myelogram revealed 64% bone marrow plasmacytosis, with dystrophic plasma cells. Serum protein electrophoresis showed a monoclonal peak, immunofixation revealed the presence of monoclonal Ig G lambda with positive Bences Jones lambda proteinuria. The ionogram revealed hypercalcemia with end stage renal failure. Radiological workup showed the presence of a tumour-like mass in the lung. The diagnosis of plasma cell leukemia was made and the patient was put on the VDT-PACE protocol, having received 2 courses. Afterwards, the patient presented with febrile pancytopenia and a neurological complication consisting of generalized tonic-clonic seizures. Neurological imaging (normal CT and cerebral MRI) with on EEG, slow waves abnormalities. The patient died shortly afterwards of neurological complications.

Observation 2:

This 80-year-old male patient underwent prostatectomy. He presented with asthenia, dyspnea on exercise, associated with bone pain evolving for 3 months, with no change in general condition. Biological workup revealed normochromic macrocytic anemia. Blood smear showed 20% peripheral plasma cells. Examination of the bone marrow revealed bone marrow infiltration with 45% dystrophic plasma cells. Serum electrophoresis showed a peak in the gamma globulin at 78 g/l. Immunofixation showed monoclonal IgG lambda with positive Bence Jones proteinuria and 24-hour proteinuria at 2.59 g/24h. Calcemia and renal function were normal, and vitamin B12 and B9 levels were normal. Radiological examinations revealed no osteolytic lesions. The patient was put on a VCD protocol, but was lost to follow-up after the first cycle.

Observation 3:

55-year-old female patient, with history of myomectomy and type type 2 diabetes, was admitted for management of anaemic syndrome, haemorrhagic syndrome and bone pain. Clinically, the patient was impaired, with a PS of 4 laboratory work-up showed normocytic normochromic anemia with thrombocytopenia at 18,000/mm3 and renal failure with normal kidney size. blood smear showed 17% plasma cells, serum protein electrophoresis revealed the presence of a monoclonal gamma globulin peak quantified at 40.98 g/l, and immunofixation showed an IgG Lambda. And IgG dosage at 34g/l, the bone marrow plasma cell count was estimated at 22%, radiological findings revealed osteolytic lesions of the axial and peripheral skeleton. The patient was put on the VCD-PACE protocol, and died after 2 courses of treatment.

Conclusion

Plasma cell leukemia is a rare but highly aggressive for, and still poorly managed.

Recommendation

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