Multiple myeloma associated with Hypereosinophilic syndrome: A case report

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Background: Hypereosinophilic syndrome (HES) was characterized by chronically increased peripheral blood eosinophil levels (exceeding 1.5 × 10^9/L for more than six consecutive months), and organ damage related to eosinophilic infiltration. Both hematopoietic and solid neoplasms may be associated with peripheral blood eosinophilia. Multiple myeloma is rarely associated with eosinophilia. We report the case of a 31-year-old man with multiple myeloma associated with marked eosinophilia.

Case report: A 31-year-old man was hospitalized for fever and abdominal discomfort. A complete blood count (CBC) revealed hemoglobin (Hb) 8.3 g/dL, white blood cell count (WBC) 12,300/μL with differential cell count including 35% eosinophils (4,310/μL) and platelet count 77,000/μL. He was consistently showed eosinophilia moe than 6 months. Other laboratory findings showed protein 12.7 g/dL, albumin 2.2 g/dL, IgE > 3000 IU/mL, IgG > 5000 mg/dL, and Bence-Jones protein (+). Diagnostic evaluation of the eosinophilia included negative of stool specimen for parasitic infection and MAST allergy test. Computerized tomographic (CT) scan showed effusion on right pleura and Hepatomegaly without definite focal lesion. Thoracentesis and paracentesis revealed many plasma cells and eosinophils. The liver parenchyme showed infiltration of numerous eosinophils, plasma cells on the hemorrhage focus. Echocardiogram showed Minimal Pericardial effusion, septal hypertrophy, and mild global hypokinesia of left ventricle. According to above Results, Eosinophil involved multiple organs. Serum protein electrophoresis and immunoelectrophoresis revealed a monoclonal IgG paraprotein. Bone marrow aspiration showed that eosinophilic cells are increased in number (19.1%) and plasma cells are increased in number (22.9%). So, we could diagnosed multiple myeloma with HES. We treated with VD (bortezomib plus dexamethasone) regimen every 3weeks. 4months later, eosinophils revealed 250/μL. IgG level was decreased 1103 mg/dL, and monoclonal peak was disapeared in serum protein electrophoresis. And then, He was performed autologous stem cell transplantation. At now, he become complete remission state.

Clinical course of moderate aplastic anemia in adults

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Introduction: The clinical course of moderate aplastic anemia is variable, and risk factors related to disease progression are not well known.

Method: We reviewed clinical and laboratory data of the patients who were diagnosed with moderate aplastic anemia from 1997 to 2007 at Seoul National University Hospital and analyzed clinical course and outcomes in these patients. We defined ‘moderate’ aplastic anemia as hypocellular marrow with cytopenia in the peripheral blood which doesn’t meet the criteria for severe aplastic anemia (at least 2 of followings; ANC<500/μL, platelet<20,000/μL, or reticulocyte<20,000/μL). Result: Among total 96 patients, 53 (55.2%) were male and the median age was 37.6 years old. Forty patients were initially asymptomatic. Sixty-two patients who were treated with oxymetholone, ATG/ALG, cyclosporin or other agent after initial diagnosis showed significantly lower levels of initial hemoglobin, red blood cell count, and platelet count than those who haven’t received any treatment. During follow-up period, 18 patients progressed to severe aplastic anemia. Their median age was 29.9 years old and the median progression time was 18 months. Initial white blood cell count and absolute neutrophil count in the evolution group tended to be lower than the other. The patients with refractory thrombocytopenia showed markedly higher frequency of progression to severe aplastic anemia. Treatment itself and responsiveness in reticulocyte and absolute neutrophil count were not correlated with their clinical courses. Sixteen patients showed overall improvement, whereas two patients developed secondary hematologic disease; acute myeloid leukemia and myelodysplastic syndrome. Conclusion: Moderate aplastic anemia has relatively indolent and mild clinical course. However, 18.8% of the study population progressed to severe disease. Low white blood cell and absolute neutrophil count at diagnosis and refractory thrombocytopenia were associated with disease progression. Careful monitoring and early management are needed for patients at risk.