As a Rare Presentation of Waldenstrom's Macroglobulinemia; Fever

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To the Editor,

Waldenstrom's macroglobulinemia (WM) is a B cell lymphoplasmacytoid lymphoma, which is characterized by a presence of serum monoclonal immunoglobulin M and clonal lymphoplasmacytic cells in bone marrow.[1,2] Lymphadenopathy, splenomegaly, leucopenia, thrombocytopenia, anemia, hyperviscosity and peripheral neuropathy are commonly seen in WM.[2] B-symptoms (weight loss, fever or night sweats) may also be detected in WM patients.[2] Although fever is a B symptom, WM is not considered as a diagnosis in a febrile patient.[3]

In literature fever accompanied with WM were reported either with other B-symptoms or due to infection. Thus, at the time of diagnosis most of WM patients have no fever.[4-6] Here we would like to present a patient, who has been diagnosed with WM during an evaluation of fever.

A 51-year-old Caucasian woman has been admitted to our hospital with a 4-day-fever and fatigue. She has been treated with inhaler steroid and ß-2 agonist because of asthma. She had no dysuria, cough, sputum, weight loss, night sweats or diarrhea. In physical examination liver was palpable as 2 cm at the right midclavicular line. Other physical examination findings, including lymph nodes and skin findings were normal.

In laboratory studies, complete blood count (CBC) revealed bicytopenia; which were hemoglobin 7.8 g/dl (N: 11.7-15.5), hematocrit 23.6% (N: 34.5-46.3), mean corpuscular volume (MCV) 59.2 fL (N: 80.4-95.6), red cell distribution width (RDW) 24.4% (N: 11.7-14.6) and Leukocyte 2.4 $x10^3/\mu L$ (N: 4.1-11.2). Platelet levels and neutrophil counts were normal. In biochemical analysis creatinine and blood urea nitrogen were slightly increased, which were 1.01 mg/dL (N: 0.5-0.9) and 25.6 mg/dL (N: 6-20), respectively. Additionally; erythrocyte sedimentation rate (ESR): 115 mm/h (N: 0-20) and C-reactive protein: 30 mg/dL (0-0.8) were high. Liver and renal function tests also revealed hyponatremia and hiperbilirunemia (Sodium: 132 mEq/L (N: 136-147), total biluribin: 1.5 mg/ dL (N: 0.1-1.2)). ß-2 microglobulin levels were high: 3125 ng/mL (N: 609-2366). Albumin levels were low: 3.14 g/dL (N: 3.4-4.8); but globulin levels were high: 5.05 g/dL (1.5-4.6). Other liver and renal function tests and lactate dehydrogenase (LDH) levels were normal.

No microorganism was shown in blood and urine cultures. In peripheral blood smear, only hypochromic microcytic anemia was seen. Iron parameters considered as anemia of chronic disease. Anemia, high ESR and low albumin/globulin ratio considered a diagnosis of plasma cell dyscrasia. Monoclonal IgM κ (kappa) peak was seen in serum protein electrophoresis. To distinguish lymphoma, a thoracoabdominal computed tomography (CT) was performed. Thorax CT was normal, but abdominal CT revealed splenomegaly. To distinguish IgM Multiple Myeloma bone marrow aspiration biopsy was performed and revealed a CD 20 positive lymphoid B cell infiltration and a lymphoproliferative disorder but no plasma cells.

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As a conclusion she has been diagnosed as WM and treated with R-CHOP (Rituximab and cyclophosphamide, doxorubicin, vincristine, and prednisone). After 6 course R-CHOP treatment she has been in complete remission.

Fever commonly may be seen in Schnitzler syndrome, which is another monoclonal IgM gammopathy. Urticaria, inflammation, bone pain, arthralgia, lymphadenopathy and hepatosplenomegaly are other findings in Schnitzler syndrome.[7,8] She had only fever, but no other findings. As a result, her findings were not related to Schnitzler syndrome. Thus, a diagnosis of Schnitzler syndrome has been excluded.

IgM Multiple Myeloma is a disease with monoclonal gammapathy and plasma cell infiltration in bone marrow and it is excluded with performing bone marrow aspiration.

Lymphadenopathy is one of the most common manifestations of lymphoma. Symptoms can include fever, night sweats, weight loss, and fatigue. Although she had fever, thoracoabdominal CT and physical examination did not detect any pathological lymph nodes. However, WM is a B cell lymphoplasmacytoid lymphoma, which is characterized by bone marrow infiltration, clonal lymphoplasmacytic cells and presence of a serum monoclonal Ig M.[1,2] Our patient had bone marrow infiltration, serum monoclonal IgM peak and clonal lymphoplasmacytic cells in bone marrow. Thus, the diagnosis of WM was done. Here, as a conclusion we would like to state that WM might be presented with only fever. Physicians should be careful about rare presentations of WM.

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