

CASE REPORT

A Case of Waldenström's Macroglobulinemia Complained of Anorexia

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ABSTRACT

It has been reported that an 82-year-old man had complained of “anorexia with wasting away (weight loss of 35 pounds) over the past six months”. The cause was unknown, and his appetite dropped to only liquid milk and soy milk every day. On further examination, his CA-199 (a tumor marker) was in the normal range, but the serum IgM level was found to be 4 times higher than normal, and lymphoplasmacytic cells in his bone marrow were 2 times higher than normal. His myeloid differentiation factor (MYD88) was detected to be positive in gene mutations, confirming a diagnosis of “Waldenström's macroglobulinemia” (WM) complicated with “Bing-Neel syndrome” (BNS); as a result, the anorexia was attributed to it, and the symptomatic treatment with Traditional Chinese Medicine (TCM) was proposed to improve his condition.

Keywords: Anorexia; Waldenström's macroglobulinemia (WM); IgM; Lymphoplasmacytic; Gene mutation

1. Introduction

This is an 82-year-old male patient with a chief complaint of persistent anorexia with severe weight loss over the past six months, which developed slowly into only drinking liquid milk and soybean milk as a daily diet every day due to unknown etiology. His CA-199 (a mark of pancreatic cancer) was normal within the normal limits and the serum

immunoglobulin M (IgM) was detected to be 8507 mg/L \uparrow , confirmed by a lymphoplasmacytic increase in the bone marrow and a positive result of MYD88 in gene mutation. A diagnosis of Waldenström's macroglobulinemia (WM) complicated with Bing-Neel syndrome (BNS, leptomeningeal infiltration of lymphoplasmacytic) established, and TCM therapy would be applied to improving his severe anorexia next.

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2. Case Report

This is an 82-year-old male patient, who was admitted to our hospital on November 1, 2022, due to a chief complaint of persistent anorexia with severe weight loss over the past six months. Six months ago, the patient experienced limb numbness in his left leg; since then, the loss of appetite occurred without obvious inducement. At that time, he was diagnosed with a “stroke”, and a corresponding therapy was given.

Recently, the patient felt nausea and vomiting, associated with a poor appetite for rice or noodles, which developed slowly into only drinking liquid milk and soybean milk as a daily diet every day. There was spontaneous epistaxis occasionally, but no dizziness, chills, and fever. Weight loss of 35 pounds was made during the half a year, and cholangiopancreatography (MRCP) was once conducted in the other hospital, suspecting of “pancreatic space-occupying lesions”. Instead of rice and noodles, the patient lived mostly on drinking milk and soybean milk, along with a deteriorating status of mind.

On the physical: T 36.4 °C, P 60/min, R 18/min, BP 143/83 mmHg.

Thinned a lot on looking, drooped spirits, hectic cheeks on both sides, and bilateral “dark under-eye circle” were seen on admission. No appearance of anemia, icterus of sclera, or cyanosis of lips could be observed. Both breath sounds were clear and dry and moist rales were not heard on both bases. The heart rate was 60/min and worked regularly. There was no significant expansion of cardiac percussion. No hepatomegaly or splenomegaly was found on palpitation. The muscle strength of extremities was grade V, and negative Babinski’s signs were present. Abdominal MRCP showed: a cyst of the pancreatic head with dilatation of the pancreatic duct, and an intraductal microcapillary tumor was the first consideration. So the impression on admission was cerebral infarction (right) sequelae and pancreatic space-occupying lesion.

After admission, the WBC was 6.92×10^9 /L, RBC 4.28×10^{12} /L, PL 256×10^9 /L, N 75.9%. CA-199: within the normal range. GFR: 83 mL/min,

Creatinine: 70 μ mol/L. Immunoglobulin M (IgM) 8507mg/L \uparrow . Light chain quantification (blood): κ -LC: 199 mg/dL, λ -LC: 196 mg/dL. Immunofixation electrophoresis: IgGAM type M-protein (+); Light chain: lambda-type M-protein (+). The ratio of the lymphoplasmacytic cell was 2.5% (two times higher than normal. The patient was transferred to the First Hospital of Zhejiang University due to elevated immunoglobulins, and further determined the “myeloid differentiation factor 88” (MYD88) in gene mutation. As a result, Waldenström’s macroglobulinemia (WM) as a final diagnosis was confirmed after completing the examination.

3. Discussion

Waldenström’s macroglobulinemia (WM) is a malignant B-cell lymphoma, characterized by lymphoplasmacytic infiltration of the bone marrow, with elevated serum monoclonal immunoglobulin M (IgM). The key to diagnosis is the marrow infiltration of lymphoplasmacytic cells, with small lymphocytes predominant. It is because of the missense mutation of the MYD88 gene that the lymphoplasmacytic cells in the bone marrow grow “over the mark” (2.5%)^[1]. The annual incidence of WM is 0.057‰, with more males than females. The results of immunofixation electrophoresis in this case, IgGAM type M-protein (+) and light chain Lambda-type M-protein (+), were diagnosed as WM. Given being mild in the patient’s condition, chemotherapy was not recommended. Regarding the cause of “anorexia”, we believe that the current condition is not “asymptomatic”, which should be connected closely with WM. Theoretically it should be one of the complications of WM. One article specifically mentioned Bing-Neel syndrome (BNS)^[2,3].

Further retrieval of the BNS, referred to in the text “Anorexia is caused by intracranial infiltration of WM-plasma cells”. In other words, the patient’s prominent “anorexia” resulted from WM utilizing Bing-Neel syndrome, confirming the above prediction that the condition was not “asymptomatic”. Bing-Neel syndrome, a complication of WM, was first reported in 1936. Next, our medical team in-

tends to use Traditional Chinese Medicine (TCM) to improve “refractory anorexia” based on promoting blood circulation and reducing blood viscosity (viscosity)^[4].

4. Conclusions

The patient had a typical clinical presentation at the onset of the disease. The clinical presentation of WM was diverse, when elderly male patients, there is a history of “cerebral infarction”, pancreatic mass shadow, poor appetite and obvious increase of IgM level, it is necessary to consider the possibility of WM to avoid missed diagnosis or misdiagnosis.

Conflict of Interest

There is no conflict of interest.

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