DOI: 10.21276/sjmcr.2017.5.1.7

Scholars Journal of Medical Case Reports **ISSN 2347-6559 (Online)**
Sch J Med Case Rep 2017; 5(1):20-21 **ISSN 2347-9507 (Print)**

(An International Publisher for Academic and Scientific Resources)

A Rare Cause of Hodgkin Lymphoma: Castleman's Disease

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Abstract: Castleman's disease is an uncommon benign lymphoproliferative disorder. Patients with Castleman's disease are at a high risk for the development of hodgkin lymphoma and nonhodgkin lymphoma. We report a case with castleman disease for 10 years. She admitted to our clinic with complaint of weakness. Autoimmune hemolitic anemia was detected in this patient. On physical examination; lenfadenomegalies of right servical and supraclavicular that growing rapidly were detected. PET-CT imaging revealed right hemiservical and supra-infraclavicular lenfadenomegalies with intense FDG uptake (level of SUVmax was 8.22). We performed excisional biopsy to right hemiservical lenfadenomegaly and identified mixt selulary hodgkin lymphoma.
Keywords: Castaleman's disease, hodgkin lymohoma, malign transformation.

INTRODUCTION

Castleman's disease (CD) is a lymphoproliferative disorder, firstly described in 1954. It is known as giant lymph node hyperplasia or angiofollicular lymphoid hyperplasia [1]. The diagnosis is made by histopathological examination of the lymph node. There are two clinical subtypes, unicentric and multicentric. Approximately 90% of the CD are unicentric, 10% are multicentric. In etiology, elevate of interleukin 6 is important in unicentric type and multicentric type is related to level of serum interleukin 6 and HHV-8 positivity.

Castleman's disease may be associated with POEMS syndrome, hodgkin and nonhodgkin lymphoma, Kaposi sarcoma. In addition, coexistence of hodgkin lymphoma and castleman disease have been reported in literature. We present a case with castleman disease that transformed into hodgkin lymphoma due to its rarity.

CASE REPORT

A 44-year-old female patient admitted to our polyclinic with complaints of fatigue and swelling in the neck. She had hyaline vascular type of castleman disease for 10 years. The patient has not previously received treatment for castleman's disease. In physical examination; lymphadenomegalies of right cervical and supraclavicular were detected. In the laboratory tests of the patient; serum hemoglobin was 6.3 g / dl, leukocyte count was 10400 / mm^3, platelet was 558000 µ / l. Serum urea value was 12.1 mg / dl, creatinine was 0.4 mg / dl, sodium was 134 mEq / L, potassium was 4.6 mEq / L, uric acid was 4 mg / dl, lactate dehydrogenase was 362 U / L and indirect bilirubin was 1 mg / dl. Polychromasia was present in the peripheral blood smear and reticulocyt count was 7%. Direct and indirect coombs tests were positive.

Positron emission tomography (PET) scan with 18F-fluorodeoxyglucose (FDG) images revealed right hemiservical, right supra and infraclavicular lymph nodes with intense FDG uptake (SUVmax was 8.22). The patient underwent cervical excisional lymph node biopsy and methylprednisolone 1 mg / kg / day was initiated. After 25 days; the patient's hemoglobin level returned to normal with steroid therapy. Mixed cell type hodgkin lymphoma was detected. Bone marrow biopsy was performed and infiltration was not detected. Adriamycin, bleomycin, vinblastine and deticine treatment were started in the patient.

DISCUSSION

Castleman's disease is a rare benign lymphoproliferative disease. 2/3 of CD have lympadenomegaly in chest and 1/3 of CD have abdominal lymphadenomegaly. It is more common in males. However, our case is woman. Clinically it can be unicentric/multicentric based on the extent of lymph node involvement. Histomorphologically, three distinct variants are known, hyaline vascular, plasma cell, mixed type [2]. Unisentric type is the more common type of Castleman's disease [3]. It affects only a single group of lymph nodes, usually in the chest or abdomen. It is usually asymptomatic, occurs in young adults, has a benign course which responds to local therapy. Multicentric castleman disease is frequently associated with HIV infection and HHV-8. These patients may have fever, night sweats, weight loss, anemia, thrombocytopenia, hypergammaglobulinemia and a

higher risk of conversion to large B-cell lymphoma. Single / combined chemotherapeutics, interferon, thalidomide, monoclonal antibodies against interleukin-6 and CD-20, antiviral drugs are used for treatment in patients with multisetric castleman disease. Our patient has unisentric and hyaline vascular type CD and has not received treatment for CD.

The pathogenesis of Castleman's disease has not yet been clarified. However, it is known that the increase of interleukin 6 plays an important role in the pathogenesis. Interleukin 6 stimulates the proliferation of B cells and enhances angiogenesis by increasing vascular endothelial growth factor release. HHV-8 plays role in multisentric castleman disease [4]. Serum HHV-8 DNA level is associated with clinical symptoms and is important in predicting relapse [5].

In the literature, castleman disease and hodgkin lymphoma are detected as occasional cases. Hodgkin's lymphoma is more common in the same lymph node in cases with unicentric castleman disease with plasma cell histological type. It has better prognosis than non-hodgkin lymphoma with castleman disease. Our case had a unisentric and hyaline vascular castleman disease.

CONCLUSION

Hodgkin and non-hodgkin lymphoma may be develop associated with Castleman's disease. Approximately 20% of cases with multicentric castleman disease have non-hodgkin lymphoma. Especially cases with plasma cell type and B symptoms are more risky for the development of hodgkin lymphoma. Therefore; the patients with castleman disease should be carefully monitored for coexistence and devolopment of lymphoma.

REFERENCES

1. Castleman B, Towne VW. Case records of the Massachusetts General Hospital; weekly clinicopathological exercises; founded by Richard C. Cabot. The New England journal of medicine. 1954 Sep;251(10):396-400.
2. Keller AR, Hochholzer L, Castleman B. Hyaline-vascular and plasma-cell types of giant lymph node hyperplasia of the mediastinum and other locations. Cancer. 1972 Mar 1;29(3):670-83.
3. Herrada J, Cabanillas F, Rice L, Manning J, Pugh W. The clinical behavior of localized and multicentric Castleman disease. Annals of Internal Medicine. 1998 Apr 15;128(8):657-62.
4. Polizzotto MN, Uldrick TS, Wang V, Aleman K, Wyvill KM, Marshall V, Pittaluga S, O'Mahony D, Whitby D, Tosato G, Steinberg SM. Human and viral interleukin-6 and other cytokines in Kaposi sarcoma herpesvirus-associated multicentric Castleman disease. Blood. 2013 Dec 19;122(26):4189-98.
5. Stebbing J, Adams C, Sanitt A, Mletzko S, Nelson M, Gazzard B, Newsom-Davis T, Bower M. Plasma HHV8 DNA predicts relapse in individuals with HIV-associated multicentric Castleman disease. Blood. 2011 Jul 14;118(2):271-5.