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Necrotizing histiocytic lymphadenitis due to three cases applying with painful cervical lymphadenopathy

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ABSTRACT

Necrotizing Histiocytic Lymphadenitis (NHL)is an idiopathic reason of lymphadenopathy which rather affects the young population. In this article, 3 cases which have applied to our Internal Medicine Policlinic with painful lymphadenopathy within four months and which were diagnosed with NHL have been presented and their clinical features discussed.

Key words: Kikuchi-Fujimoto disease; Kikuchi disease; Histiocytic necrotising lymphadenitis; Lymphadenopathy

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INTRODUCTION

Histiocytic necrotising lymphadenitis(NHL) is a benign disease with unknown etiology, which is rather determined in young women. It is mostly seen in Asia and is known by the name of the Japanese pathologists, who identified the disease in 1972, as the Kikuchi-Fujimoto disease (KFD).[1] It is considered that the disease occurs by the immune response of the T-cells and histiocytes depending on an infectious agent. Epstein-Barr virus, human herpes virus 6, human immunodeficiency virus (HIV), parvovirus B19, human herpes virus 8, Yersinia enterocilitica, paramyxo viruses, parainfluenza and toxoplasma are among the agents. The patients mostly apply with lymphadenopathy (100%) and fever(35%). Other symptoms are rash, arthritis, fatigue and hepatosplenomegaly and are seen by 10% and less. Severe systemic symptoms are seen less, whereby cases with aseptic meningitis, meningoencephalitis, acute cerebellar symptoms with tremor and ataxia, thyroid and parathyroid growth, pleural effusion, panuveitis, papillar conjunctivitis, hemophagocytic syndrome, polymyosite, autoimmune hepatitis, brachial neuritis, peripheral neuropathy and antiphospholipid syndrome with multiorgan failure were reported.[2]

The laboratory findings are mostly nonspecific. The final diagnosis is established by means of the lymph node biopsy, whereby the needle biopsy is not preferred. A major part of the cases recovers within 1-6 months spontaneously.[2,3]

CASE REPORTS

Case 1

A 24- year- old female patient with no previous health problem defined. About one month ago, swelling was

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reported to have begun on the left side of the neck and she had fever up to 38°C. She has consulted a physician. It was stated that there wasn't any feature in the blood analysis made and a 1-week antibiotic therapy was prescribed. Her fever reduced, but the swelling and pain on the left side of her neck continued. Upon the physical examination, painful and hard lymphadenopathies were determined at the neck's left anterior cervical chain, the largest of which had a size of 2x2 cm. These lymphadenopathies were not attached around and to each other. They also didn't feature any temperature increase. The other findings of the examination were normal.

Case 2

A 42-year-old male patient with no previous health problems. About 1.5 months ago, he had swellings at both inguinal regions and fever about 38°C. In the General Surgery department, it was stated that he had lymphadenitis and was prescribed a 10-days antibiotic therapy. The consulted infectious diseases physician stated that the patient had shingles and prescribed an antiviral therapy to the patient. Subsequently, he had new painful swellings at the neck's left side. Findings from our physical examination showed painful, hard lymphadenopathies at the neck's left posterior chain. The largest lymphadenopathy had a size of 2x1.5 cm. Lymphadenopathies were not attached around and to each other and didn't show any temperature increase. At both inguinal regions, hard, painless microlymphadenopathies were determined, which were not attached around and to each other, and didn't feature any temperature increase. The other examination findings were found normal.

Case 3

A 27-year-old female patient with no previous health problems. About 20 days ago, she had consulted a physician with painful swellings at both sides of his neck, small red spots at his body and fever of around 37.7°C - 37.8°C. No distinctive feature was determined in the blood analysis and she was told that there were reactive lymph nodes observed in his neck ultrasonography. The patient was diagnosed with acute lymphadenitis and was prescribed a 7-days amoxiciline + clavulanic acid treatment. His fever and rashes disappeared. The swelling and pain at the left side of the neck did not regress. Upon the physical examination made, painful, hard lymphadenopathies were determined at both neck's left and right anterior chains, the largest on the left had a size of 2x1 cm and the largest on the right had a size of 0.5x0.5 cm. Both of them individually were not attached to each other and didn't show any temperature rise. The other examination findings were found normal.

The patients' laboratory and radiological analyses have been summarized in Table 1.

The radiological images of Case 2 are presented in Figure 1.

DISCUSSION

The common points of the three cases in our presentation are that all of them are under 50 years of age, they consult their physicians with fever and painful lymphadenopathy, and as first stage, their hemogram, sedimentation, CRP, ALT, AST analyses are made with prescription of nonspecific antibiotic therapy. The patients visited us since their painful lymphadenopathy

Table 1: Laboratory and Radiological findings of the three cases

Laboratory and radiologic tests	CASE 1	CASE 2	CASE 3
WBC (K/uL)	7.25	5.19	6.32
Hb (g/dL)	13.5	14.8	15.5
Hct (%)	40	43	45
Plt (K/uL)	318	240	226
Sedim (mm/h)	5	4	2
CRP (mg/L)	6	3	8
ALT (U/L)	20	16	23
AST (U/L)	18	15	27
GGT (U/L)	15	14	12
ANA	Negative	Negative	Negative
Anti ds DNA	Negative	Negative	Negative
CMV IgM-IgG	Negative	Negative	Negative
EBV IgM-IgG	Negative	Negative	Negative
Anti HIV 1&2 and p24 Antigen (S/CO)	Negative	Negative	Negative
Neck USG	At left level IIand III, multipl LAP with thick cortex, the largest one of which is 2x2 cm	At left level III, 19x11 mm LAP mass with thick cortex, fatty hila obliterated,	At left level III and IV, multipl LAP, hila not clearly in sight, the largest one of which is 11x12 mm
Neck MRI	In the left anterior cervical region, multipl LAP masses, the largest one of which is 22x20 mm.	In the left posterior cervical triangle, LAP mass of 12x19 mm size	In the left anterior region, multipl LAP masses, the largest one of which is 12x10 mm; in the posterior cervical triangle the largest one is 6x5 mm.

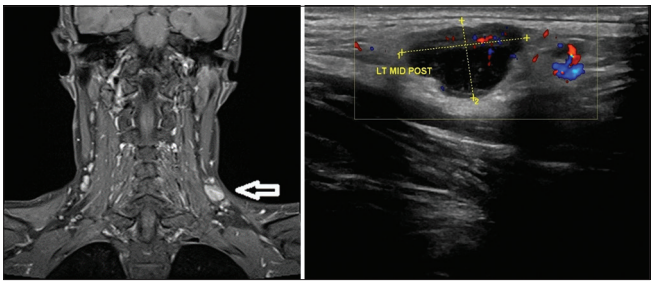

Figure 1: Radiological images of Case 2

did not recover, although their fever reduced. Here, under the guidance of a good ultrasonographist, a magnetic resonance analysis was made on the cases, and upon suspicion, the cases underwent the lymph node biopsy.

In case of patients coming with local lymphadenopathy, all lymphadenopathy reasons should be checked up after a good anamnesis and physical examination. As in our cases; for the differential diagnosis of local painful lymphadenopathies, the Epstein-Barrvirus, cytomegalovirus, HIV, toxoplasmosis, Y. enterocolitica, cat scratch disease tests and serological tests related to other infectious agents may be requested apart from general analyses.[4]

While establishing the NHL diagnosis, three groups of diseases should be taken into consideration for the differential diagnosis:

The first one is that a malign disease, especially lymphoma, is not omitted. The second one is that tuberculosis lymphadenitis, which still maintains its importance especially in developing countries, is excluded. Whereas, the other one is its relation with the collagen tissue disease Systemic Lupus Erythematosus (SLE). Along with the fact that SLE may cause lymphadenopathy itself, it may also be together with NHL.[5] Therefore, it may be necessary to follow up the patients for a while interms of SLE, even if it was excluded at the beginning.

The proliferative phase of the pathological examination (also known as the early stage) shows follicular hyperplasia and paracortical expansion by lymphocytes, T and B cell blasts, plasmacytoid monocytes, and histiocytes with numerous sapoptoses in the background, the necrotic phase in the late stage shows necrosis without a neutrophilic infiltrate associated with progressive dominance of histiocytes as the major cell type. The histiocytes generally have crescentic nuclei and contain phagocytosed debris. Immunohistochemical stains show CD68-positive plasmacytoid monocytes and histiocytes with predominantly CD8-positive T lymphocytes. In the "necrotizing phase", the absence of neutrophils helps distinguishing this condition from SLE and drug-induced lymphadenopathy.[2] In all three of our cases, findings consistent with the necrotic phase were determined, whereby histiocytic cells disrupting the structure in the expanded paracortical regions, apoptotic cells in between, crescentic histiocytes a part of which has phagocytosed nuclear debris and the absence of neutrophile leucocytes were striking common characteristics.

CONCLUSION

Peripheric lymphadenopathies are frequently seen findings in daily clinical practice. Along with the fact that most of them are local lymphadenitis, infections, malignities and autoimmune diseases are also included in differential diagnosis. Whereas NHL is a rareidiopathic lymphadenitis reason which has to be differentially diagnosed with severe diseases such as lymphoma, SLE, etc. Its diagnosis is established by means of lymph node biopsy and mostly progresses well. These cases show that NHL is a disease which should be considered among the reasons of lymphadenopathy, even though it is a rare reason.

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