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KIKUCHI-FUJIMOTO DISEASE MIMICKING SYSTEMIC LUPUS ERYTHEMATOUS: CASE REPORT

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ABSTRACT

Kikuchi-Fujimoto disease (KFD) or histiocytic necrotizing lymphadenitis is a rare, benign, self-limiting disease with unknown etiology characterized by regional lymphadenopathy. We report a case of a 29 year old female who presented with fever on and off, multiple joint pain, oral ulcers, erythematous facial rashes, hemorrhagic crusting on both lips and cervical lymphadenopathy of 1 month duration. Clinically the disease was mimicking systemic lupus erythematous (SLE) but immunofluorescence was negative for it. Lymph node biopsy suggested a diagnosis of KFD.

INTRODUCTION:

KFD is a rare, benign, self-limiting cervical lymphadenitis with unknown etiology. [1, 2] KFD was first reported in 1972 by Kikuchi[3] as well as independently, by Fujimoto et al.[4] Typical features of the disease include sub acute regional lymphadenopathy predominantly involving cervical lymph nodes as well as fevers, often accompanied by leucopenia, high erythrocyte sedimentation rate (ESR), and anemia.[5]

No specific diagnostic imaging or laboratory tests are available and KFD remains a diagnosis of exclusion. Clinicians must rule out other causes of ne-crotizing lymphadenopathy, such as malignancy, systemic connective tissue disorders, and infectious lymphadenitis, before diagnosing KFD. The skin manifestations of our case mimicked SLE but immunofluorescence and serology were negative for it.[6] Paucity of reports in literature with unusual presentation mimicking SLE has prompted us to report this case.

Case Report:

A 29-year-old female presented to us with a 4 weeks history of fever, pain in knee, wrist and ankle joints , oral ulcers, erythematous rashes on face and upper chest, hemorrhagic crusting on lips and left-sided neck swelling for 3 weeks. There was no history of tuberculosis or contact with a case of tuberculosis. The fever was intermittent in nature and used to subside after paracetamol intake. She had polyarthritis involving the wrists, ankles, and small joints of the hands and feet. One week after the onset of fever she noticed multiple, firm, tender enlarged bilateral cervical lymph nodes distributed mainly in posterior cervical region of 1 month duration. Personal and family histories were non-contributory. She did not complain of any dental problem or odynophagia at that point of time.

Physical examination on admission revealed a pale thin girl, weighing 44.7 kg. His vital signs were normal limit: heart rate 90, blood pressure 121/81, respiratory rate 16 and oxygen saturation 98% in room air. She had no hepatosplenomegaly. Her initial clinical features were mimicking SLE.

Laboratory investigations Routine hemogram Hb was 10.2 gm% showed anemia, thrombocytopenia Platelet 98000 and mild leukocytosis, ESR 85 mm/hr. Antinuclear antibody (ANA) and anti-dsDNA antibody were negative for SLE. Mantoux test, Widal, rapid dengue antibody test for IgM and IgG, rapid malaria test for P.vivax, HBsAg, HCV, HIV-1, VDRL, rheumatoid factor, chest X-ray and Echo were normal. Her blood and urine culture were negative. Surgical referral was done for lymph node biopsy.

Histopathological evaluation of left cervical lymphnode revealed lymph nodal tissue with paracortical, well circumscribed necrotic lesions, with karyorrhectic debris and fibrin deposits. There was proliferation of phagocytic foamy histiocytes and infiltration of plasmacytoid monocytes, histiocytes and lymphocytes surrounding karyorrhectic debris [figure 1 and 2]. Plasma cells and neutrophils were absent. No follicular hyperplasia and no atypia were noted. Staining for acid-fast bacilli was also negative. A diagnosis of KFD was made.

The patient was treated with antibiotics, non-steroidal anti-inflammatory drugs and oral steroids for 10 days after which the lymph nodes regressed and other symptoms subsided.

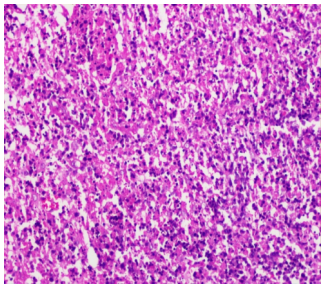

Figure 1: Proliferation of phagocytic foamy histiocytes & infiltration of plasmacytoid monocytes (H&E X 10)

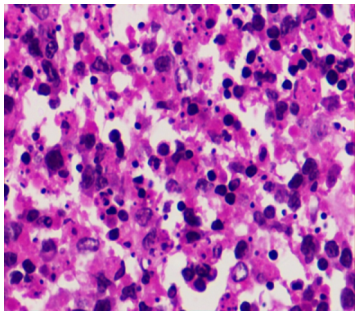

Figure 2: Plasmacytoid monocytes, histiocytes and lymphocytes surrounding karrryorhectic debris (H&E X 100)

Discussion:

KFD, also known as histiocytic necrotizing lymphadenitis, was initially described by both Kikuchi and Fujimoto independently in 1972. Though it has been reported worldwide, it still remains a poorly recognized clinicopathological entity and is confused with lymphoma and SLE.

The exact aetiology of KFD is not known. A lot of triggers have been incriminated which includes Parvovirus B-19, Epstein-Barr virus, human immunodeficiency virus, Human herpes virus 6, human T-cell lymphotropic virus, Dengue virus and cytomegalovirus. Yersinia enterocolitica and other bacterial agents like, Bartonella and Brucella have also been implicated. [7]

KFD most often presents with cervical lymphadenopathy which may be tender and can be accompanied by fever, upper respiratory

tract symptoms. Less common symptoms include arthralgia, skin rashes, weakness, weight loss, diarrhoea, anorexia, chills, nausea and vomiting. About 30% of patients with KFD are reported to have skin manifestation. These cutaneous manifestations can be non specific and can present as morbilliform and rubella like eruptions, reddish plaques which resembles lymphoma, erythematous and acneiform eruptions on face. Facial or malar "butterfly rash" may also be present.[8] Cutaneous involvement tends to occur in patients who have more severe and protracted course.[9]

Hematological examination of KFD shows leukopenia and raised ESR in some cases. Other nonspecific finding includes thrombocytopenia, pancytopenia and 25% patient may present with atypical blood lymphocytes. [10]

Diagnosis of KFD is based on histopathological findings of lymph node biopsy as no specific diagnostic laboratory tests are available. Biopsy of lymphnode shows focal or complete loss of follicular architecture associated with necrosed cortical and paracortical areas. The extensive infiltrate consist of immunoblast cells, small lymphocytes, macrophages and so called plasmacytoid T cells. [11] Clinically KFD may resemble SLE or lymphoma (especially T cell non-Hodgkins lymphoma) as both these diseases can present with lymphadenopathy and fever, also the skin lesions of KFD can mimic those seen in SLE. According to some literature KFD may be associated with SLE. [12]

Histological feature which helps in the differentiation of KFD from SLE is almost total absence of plasma cells in the involved nodal tissue in KFD.[12] Neutrophils are also rarely seen in KFD which is also important differentiating feature from SLE. Moreover diagnostic serologic and immunofluorescence tests can differentiate SLE as antinuclear antibodies and anti-dsDNA antibodies were done in our patient and they were negative. Histological feature that helps in differentiation of KFD from lymphoma includes incomplete architectural effacement with patent sinuses, presence of numerous reactive histiocytes, relatively low mitotic rates and absence of Reed-Sternberg cells. [Table 1]

Table:1 Histopathological Comparison of KFD, SLE & Lymphoma

Features	KFD	SLE	LYMPHOMA
Plasma cells		+	
Neutrophils		+	
Follicular hyperplasia & atypia			+

No specific treatment is available for KFD. In supportive treatment non-steroidal anti-inflammatory drugs may be used to alleviate lymph node tenderness and fever. The course of prednisolone may speed resolution. The disease runs a benign course usually and natural history is for spontaneous resolution in several weeks to months. [14]

In conclusion, this case highlights the importance of keeping KFD in the differential diagnosis of fever with cervical lymphadenopathy, especially in a young female.

Skin as well as clinical manifestation of KFD may mimic SLE so careful Histopathological examination has importance at clinching the diagnosis in such cases.

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