

Kikuchi-Fujimoto Disease presenting with fever, lymphadenopathy and dysphagia

AKM Mosharraf-Hossain,¹ Pran Gopal Datta,² AS Ahmed Amin,³ M Jalal Uddin⁴
Department of Medicine,¹ ENT Department,^{2,3} Bangabandhu Sheikh Mujib Medical University, Dhaka,
Pathology Department,⁴ Armed Forces Institute of Pathology, Dhaka, Bangladesh.

Abstract

Kikuchi Fujimoto Disease (KFD) can present with dysphasia, fever and lymphadenopathy. A young Bangladeshi girl presented with fever, cervical lymphadenopathy, dysphasia, weight loss and skin rash. Antitubercular drugs were given on clinical judgement, with no improvement after one month. Later, fine needle aspiration and histopathology of Lymph Node suggested KFD. Computerized Tomography (CT) scan of neck revealed enlarged retropharyngeal lymphnode (LN) causing pharyngeal narrowing. Oral Prednisolone was given showing improvement and no relapse was encountered.

KFD may present with dysphasia uncommonly along with fever and lymphadenopathy. Awareness of this disorder by clinicians and pathologists will help prevent misdiagnosis and inappropriate treatment.

Introduction

Kikuchi-Fujimoto disease (KFD) is an enigmatic, benign and self-limited syndrome characterized by regional lymphadenopathy with tenderness, predominantly in the cervical region, usually accompanied with mild fever and night sweats. Initially described in Japan, KFD was first reported in 1972 almost simultaneously by Kikuchi¹ and Fujimoto et al.² as lymphadenitis with focal proliferation of

reticular cells accompanied by numerous histiocytes and extensive nuclear debris.³

We present a case of KFD having dysphasia along with fever and lymphadenopathy due to retropharyngeal LN enlargement narrowing pharyngeal lumen. The review of literature showed only one case series of 58 KFD patients in Southern Taiwan. Of these only 1 patient had odynophasia.⁴ No case of retropharyngeal LN enlargement has been reported.⁵

Case Report

In December 2003, a 19 year old Bangladeshi female presented with fever, weight loss, rash and swelling in the neck for 5 weeks. She was a known case of Bronchial Asthma since childhood. She had no history of tuberculosis (TB) exposure. Physical examination revealed enlargement of cervical lymphnodes (LNs). The LNs were multiple, 1-3 cm in diameter, soft to firm in consistency, discrete, mobile in right supraclavicular and both jugolodiagastic, submandibular and posterior cervical chains. The erythematous macules were noted symmetrically in both lower extremities. Her temperature was 101°F and weight 39 Kg. Her complete blood count (CBC) showed ESR 40 mm, neutropenia, Mantoux test (MT) 6 mm after 72 hours and normal chest skiagram (CXR). Anti-tubercular drugs including rifampicin, isoniazid, ethambutol and

pyrazinamide were given in a peripheral district hospital on clinical grounds, but there was no improvement after one month. Then she was referred to Dhaka city in January 2004. Fine needle aspiration (FNA) of a right cervical LN was done. The smear showed large number of fragmented lymphocytes and polymorphous population of lymphocytes in a necrotic background. Excision biopsy of a LN from the same area was done. Histopathology revealed areas of necrosis and nuclear dust with surrounding infiltration of foamy histiocytes (Figure 1). The acid-fast bacilli stain (AFB) and culture for AFB of LN was negative. Antinuclear

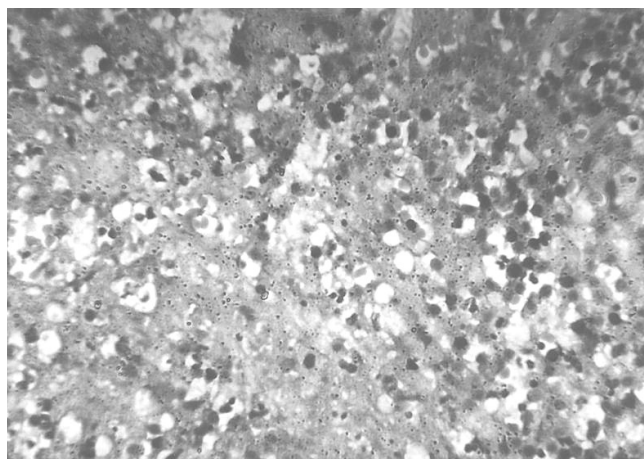


Figure 1: Histopathology of a lymph node (x 20).



Figure 2: CT scan shows retropharyngeal lymphnode (LN) narrowing pharyngeal lumen.

antibody (ANA) and anti double-stranded deoxyribose nucleic acid (anti-dsDNA) were negative. A diagnosis of KFD was made. In March 2004, still the patient had fever, rash, enlarged cervical LNs. In addition she developed progressive difficulty in swallowing solid foods and she consulted ear, nose and throat (ENT) doctors. The complete blood count (CBC) showed neutrophilic leucocytosis and erythrocyte sedimentation rate (ESR) was 100 mm in first hour. The FNA smear again showed KFD features. The CT scan of neck done on 5th April, 2004 (Figure 2) revealed enlarged LNs in superficial and deep cervical regions and retropharyngeal regions on both sides. The retropharyngeal LNs on the left side were pressing on the pharyngeal airway column causing narrowing. She was given oral Prednisolone 30 mg daily. Her rash, LNs and swallowing difficulty started to disappear within 2 weeks. Prednisolone was tapered and stopped after 2 months. The patient was seen after 1 year and there was no evidence of relapse of her rash, fever, lymphadenopathy or dysphagia.

Discussion

KFD is an enigmatic, benign and self-limited syndrome characterized by regional lymphadenopathy with tenderness, predominantly in the cervical region, usually accompanied by mild fever and night sweats. Initially described in Japan, KFD was first reported in 1972 almost simultaneously by Kikuchi¹ and Fujimoto et al.² as a lymphadenitis with focal proliferation of reticular cells accompanied by numerous histiocytes and extensive nuclear debris.³ Kikuchi-Fujimoto disease is an extremely rare disease known to have a worldwide distribution with a higher prevalence among Japanese and other Asiatic individuals.⁶ Affected patients are most often young adults under the age of 30 years; the disease is seldom reported in children. Recent reports seem to indicate that the female preponderance was overemphasized in the past and that the actual ratio is closer to 1:1.⁷

There is much speculation about the cause of KFD; infection or autoimmune has been suggested. Some initial reports hinted at *Yersinia enterocolitica* and *Toxoplasma gondii* as possible causative agents of KFD, mainly on the basis of positive serologic test results. The role of Epstein-Barr virus (EBV), as well as other viruses, in the pathogenesis of KFD remains controversial. Nevertheless, the association between KFD and SLE has been reported with a frequency probably greater than that expected by chance alone.⁶

The onset of KFD is acute or subacute, evolving during a period of 2 to 3 weeks. Cervical lymphadenopathy is present in 56% to 98% of cases, more commonly

consisting of tender lymph nodes involving the posterior cervical triangle (88.5%), generally unilateral (88.5%). Lymph node size ranges from 0.5 to 4 cm (93.4%) and occasionally, lymph nodes are larger than 6 cm. Painful lymphadenopathy is seen in up to 59% of patients. Generalized lymphadenopathy has been reported in 1% to 22% of cases. Involvement of mediastinal, peritoneal, and retroperitoneal regions is uncommon. In addition to lymphadenopathy, 30% to 50% of patients with KFD might have fever, usually low-grade, associated with upper respiratory symptoms. Less common manifestations include fever, axillary and mesenteric lymphadenopathy, splenomegaly, parotid gland enlargement, cutaneous rash, arthralgias, myalgias, aseptic meningitis,⁸ bone marrow haemophagocytosis.⁹ Our case presented with dysphasia which may be explained by CT scan of neck findings of enlarged retropharyngeal LNs on the left side were pressing on the pharyngeal airway column which is not yet been reported. Involvement of extranodal sites in KFD is uncommon but skin, eye and bone marrow being affected, and liver dysfunction have been reported.⁶

Kikuchi-Fujimoto disease is generally diagnosed on the basis of an excisional biopsy of affected lymph nodes. No specific diagnostic laboratory tests are available. Some patients have anaemia and a slight elevation of the erythrocyte sedimentation rate. Mild leukopenia has been observed in 25% to 58% of patients, whereas leukocytosis is found in 2% to 5% of cases. Moreover, 25% to 31% of patients have atypical peripheral blood lymphocytes.^{3,7} The usefulness of fine-needle aspiration cytology (FNAC) to establish a cytologic diagnosis of KFD has been limited and, in general, it is less useful than excisional LN biopsy, the overall diagnostic accuracy of FNAC for KFD has been estimated at 56.3%.¹⁰ Therefore excisional lymph node biopsy should be mandatory if clear-cut clinical and cytologic KFD findings are absent. Characteristic histopathologic findings of KFD include irregular paracortical areas of coagulative necrosis with abundant karyorrhectic debris, which can distort the nodal architecture, and large number

of different types of histiocytes at the margin of the necrotic areas.

Kikuchi-Fujimoto disease is typically self-limited within 1 to 4 months and possible recurrence rate of 3 to 4% has been reported.³ Analgesics-antipyretics and nonsteroidal anti-inflammatory drugs may be used to alleviate lymph node tenderness and fever. The use of corticosteroids has been recommended in severe extranodal or generalized KFD but is of uncertain efficacy. In our case prednisolone was given to relieve progressive dysphasia, which showed rapid relief of symptoms.

Conclusion

KFD is an extremely rare possibility to be kept in mind specially when dealing with a young female patient with fever and cervical lymphadenopathy. Awareness of this disorder, not only by clinicians, but also by pathologists might help prevent misdiagnosis and inappropriate treatment.

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