Kikuchi-Fujimoto Syndrome

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Dermatologic performed punch biopsy on abdominal rash showing mixed perifolliculitis suggestive of reactive process such as a neutrophilic dermatosis. Right supravacular lymph node was surgically biopsied with findings consistent with histiocytic necrotizing lymphadenitis; also known as Kikuchi-Fujimoto disease with negative malignancy findings.

Rheumatologic labs with positive ANA speckled at 1:1280, anti SSA/Ro highly positive, anti SSBLa highly positive. Normal C3 and C4. Anti DeNA, Anti Smith, Anticardiolipin, Anti phospholipid Antibody and C-Anca all negative.

Once fungal and malignancy evaluation was complete, patient was diagnosed with Kikuchi-Fujimoto Disease with concurrent Systemic Lupus Erythematosus. She met ACR SLE positive criteria with lymphopenia, oral ulcers, non-erosive arthritis, pleuritis, and positive ANA. She was started on 1.5 mg/kg prednisone and probiotics and improved 48 hours and CRP decreased to 5.3 mg/mL. She was discharged home on prednisone and tapered over 2 weeks. She was then started on Plaquenil 200 mg twice a day. 5 months later CRP <0.1 mg/mL and ESR 11 mm/hr with resolution of prior symptoms.

Kikuchi-Fujimoto Disease

Kikuchi-Fujimoto Disease is a histiocytic necrotizing lymphadenitis that was first diagnosed in 1972 in Japan. The disease is largely under diagnosed and not well known. A higher incidence of disease has been seen in the past five years mainly due to more awareness of condition. KFD is usually characterized by cervical lymphadenopathy and fever although a variety of other symptoms and physical findings occur sporadically.

Common symptoms accompanying fever were upper respiratory symptoms (cough, sore throat and rhinorrhea), fatigue, joint pain, muscle aches, night sweats, headache, abdominal pain, diarrehea, and rash[1]. Physical exam findings can include erythematous rash, arthritis, hepatitis, exophthalmos, xerostomia, and aphthous ulcers with lymphopenia largely localized to cervical region although localized lymphadenopathy of axillary, inguinal, and abdominal region has been seen[2].

KFD can be either a benign entity or associated with systemic conditions. Its etiology is still unknown after 45 years. Some studies propose viral infections in pathogenesis of KFD such as HHV-6, HHV-7, EBV, and CMV. CMV have also been proposed as triggering factors in SLE. KFD has been seen with systemic illnesses such as chronic idiopathic thrombocytopenic purpura, autoimmune thyroiditis, nephrotic syndrome, pernicious cytomegalovirus infection, and hemophagocytic lymphohistiocytosis but largely associated with autoimmune conditions such as SLE[3].

The diagnosis of Kikuchi disease is made solely by lymph node biopsy. Pathology of KFD involves patchy areas of necrosis with karyorrhexis (breakdown of nuclear chromatin); involving an inflammatory infiltrate of histiocytes, lymphoid cells, and immunoblasts, and absence of granulocytes. Cell death from an apoptotic process rather than necrosis occurs. Photomicroscopy images with interspersed karyorrhexis and crescent shaped changes have been considered minimum diagnostic criterion for KFD[3]. Immunophenotype studies show a predominance of T cells, very few B cells, and abundance of CD4+ T cells over CD8+ T cells. Histopathology express histioocyte-associated antigens such as lysosome, MPO, and CD68.

Lymphadenopathy associated with SLE is widespread, whereas lymphadenopathy associated with KFD is more localized, usually only affecting the cervical lymph node. Histologically lymph nodes evaluated in SLE and KFD are very similar and demonstrate non specific changes with the exception of necrosis. Hematolnucleator bodies were not found in KFD [6]. In the early proliferative stage of KFD, the presence of clusters of large atypical cells and immunoblasts can be mistaken for lymphoma. In lymphoma necrosis may or may not be extensive and neutrophils and granulomatous tend to be absent. Lymphoma is incorrectly diagnosed in approximately 30% of cases of KFD[3].

Treatment for KFD is mainly supportive with NSAIDS and steroids. Some studies show that the self limited course of KFD requires no treatment while others stress the importance of steroid use. In one study involving 138 Chinese children from 1989-2006, 4 patients died that were diagnosed late whom did not receive steroids immediately; and in the patients that were followed for 10 years, those whom did not receive steroids relapsed more frequently[9]. In the situations where KFD occurs with another systemic illness, the associated condition must receive treatment.

References