A Kimura disease case with buccal mucosa involvement

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Introduction

Kimura disease (KD) is a chronic inflammatory disease of unknown etiology, manifesting as painless unilateral cervical lymphadenopathy or subcutaneous masses in the head and neck. The lesions tend to recur despite treatment. The disease was first described in 1937 in the Chinese literature by Kimm and Szeto. Its name was given by the definitive histological description published by Kimura in 1948. KD is endemic in Asia (especially in China...
and Japan) but rare and sporadic in the rest of the world. It is commonly seen in males. 

Several etiological factors have been proposed in the pathogenesis of KD, including autoimmune, allergic, neoplastic and infective causes such as insect bites, parasites and candida, yet no infective agent has been isolated so far. TH2 mediated immune response has been proposed in the view of increased expression of IL-4, IL-5 and IL-13 mRNAs in the peripheral blood mononuclear cells.

Histologically, there are prominent germinal centers composed of three elements: cellular, fibrocollegenous and vascular. The cellular component consists of dense eosinophilic infiltrate of interfollicular zones, lysis of follicles. Granuloma formations contain infiltrates of eosinophils, lymphocytes, plasma cells, and histiocytes. Dense tissue fibrosis and vascular proliferation are present. Immunohistochemistry shows CD20-positive B lymphocytes in the germinal centers of lymph follicles and CD3-positive T cells at the periphery.

Most significant association is renal disease leading to nephrotic syndrome. It may develop before or concurrently with KD. In a few cases itchiness, urticaria and chronic eczema have been reported.

Case Report

A 52-year-old female presented with recurrent oral cavity lesions for 5 years. There was a 3 cm x 2 cm lesion on the right buccal mucosa which had white patchy areas surrounded by erythematous, vascular tissue. The lesion had indistinct borders. The biopsy revealed suprabasal acantholytic cells, capillary proliferation and lymphoplasmousytic inflammatory cell infiltration forming lymphoid follicles lying beneath the stratified squamous epithelium. The lymphoid follicles had germinal centers. There were lysis of follicles, rich eosinophilic infiltration, lymphoid hyperplasia and fibrosis. The perivascular wall was proliferative and endothelium was oedematous. Neck examination revealed no lymphadenopathy. The patient had no systemic disease involvement. History revealed no etiologi-
cal factor. History revealed that she was treated with antibiotics, topical steroids but the medications did not have any effect. The lesion was subsiding spontaneously. There was mild anemia, monocytosis, basophilia. Total eosinophil count and Ig E level were found normal. Creatinine, BUN and creatinine clearance were within normal limits and there was no renal involvement. Chest radiograph was normal.

Discussion

KD occurs mainly in young Oriental males presenting with single or multiple large asymptomatic masses involving the subcutaneous tissue or salivary glands, frequently accompanied by peripheral blood eosinophilia and elevated serum Ig E level. KD is often confused with angiolymphoid hyperplasia with eosinophilia (ALHE). In contrast, ALHE occurs predominantly in young to middle aged females of any race, presenting with multiple small erythematous dermal papules which may be associated with pruritus. Both KD and ALHE have similar predilections for the head and neck region.

Our case was a middle-aged female patient. There was not any lymphadenopathy associated with the disease. There was no peripheral eosinophilia and serum Ig E was normal. We did not think our patient as KD clinically but with lymphoid follicles having germinal centers, lysis of follicles, rich eosinophilic infiltration, lymphoid hyperplasia and fibrosis findings KD was diagnosed pathologically. Although lymphoid infiltration with eosinophils and vascular proliferation are similar features both in KD and ALHE there are distinct histologic differences. First, blood vessels are histiocytoid type specific to ALHE. Second, lysis of the follicles due to heavy infiltration of germinal centers with eosinophils is seen only in KD. Third, in KD germinal centers have Ig E that is stained immunohistochemically. Another difference is that fibrosis is prominent in KD. To make differential diagnosis with pemphigus immunohistochemical staining was applied. The vessel walls were stained Ig G positive, Ig M positive focally, Ig A negative immunohistochemically. Because there was no staining neither in the intercellular space in epithelium nor in the epithelial basement membrane, we excluded pemphigus vulgaris and bullous pemphigoid.

Surgical excision, local radiotherapy, corticosteroids (intralgesional or oral), pentoxifylline, cyclosporine, non-steroidal anti-inflammatory drugs and oral retinoids have been tried in treatment with different success rates. Messina-Doucet suggested surgical excision as the treatment of choice for definitive diagnosis and initial management. Surgical excision can be preferred as localized initial recurrence. If recurrence is frequent or the patient develops symptomatic nephrotic syndrome, oral corticosteroids should be initiated. If these options fail, low dose radiotherapy may be considered but side-effects limit its use. Other treatment options are cryotherapy, electrodesication, and laser fulguration with different results.

Our case is exceptional because the diagnosis was established on the basis of typical histopathological features, KD was not suspected clinically. KD should be considered in the differential diagnosis of oral mucosa lesions.

References


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No conflicts declared.

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