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RESEARCH ARTICLE

NON CASEATING NON GRANULOMATOUS TUBERCULOUS LYMPHADENITIS : A CASE REPORT

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Abstract

33 year old male patient, initially diagnosed as Kikuchi's disease as patient had cervical adenopathy, a year history of febrile illness and significant weight loss (7kgs in 5 months). The relevant investigations pertaining to Tuberculosis including BAL for AFB and CBNAAT, Mantoux test, Lymph node biopsy for evidence of caseating granulomas were all negative in the case. In the case, Joint family history was strong for tuberculosis where in 3 persons in recent months had suffered from pulmonary tuberculosis. subsidence of febrile illness, recedance of LN and gain of weight with antituberculous therapy in the case reaffirms the diagnosis of tuberculosis.

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Introduction:-

Cervical and paratracheal lymph node enlargement in adults is an indication of pathology, often proposes a diagnostic dilemma to physicians. Cervical tuberculous adenitis has been reported as a common cause of chronic lymphadenopathy and a common condition of extra pulmonary tuberculosis(1,3). Typical mycobacterial tuberculosis affecting either lung or peripheral lymph nodes evoke focal granulomatous inflammatory reaction with central caseating necrosis, the non reactive tuberculosis is often non revealing with granulomatous inflammatory cells and macrophages. The clinical and histopathological entities are often confusing with necrotising or immunogenic adenitis. The present case was initially reported as ? histiocystic necrotising lymphadenitis – Kikuchi's disease, having non caseating non granulomatous cervical adenitis. Diagnosis of tuberculosis was entertained based on a strong family history and rapid subsidence of febrile illness within 48 hours of hospitalisation which patient had had it for nearly 1 year duration.

Case Report

33 year old male a cloth seller by occupation, having no comorbidities presented with complaints of low grade fever with occasional high spikes off and on since 1 year. He also complained of cough with scanty expectoration for past 1 month. He denied history of smoking, chest pain, breathlessness and hemoptysis.

He offered history of loss of weight of 7kgs in the past 5 months. Prior to hospitalisation, he had multiple courses of beta lactam antibiotics and low dose steroids without any fruitful outcome. Family history was strong for

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Tuberculosis affecting his father, who died a year back, sister in law and 2 of patient's niece are on treatment for the same. He lives in a joint family.

Clinically, patient's vitals were found stable with low grade fever 99.6 F. On Examination, found with single 2*1 cm size palpable cervical lymph node which was nonmatted, nontender and soft to firm in consistency. Patient had no pallor, cyanosis, jaundice and clubbing. Systemic examination was unrevealing.

Haemoglobin was within normal limit, and total leucocyte count was 2770/cu.mm with normal differential count. No abnormal cells were seen in peripheral smear. ESR was 34mm at the end of first hour. Tuberculin test was negative. Liver enzymes were marginally raised with normal serum bilirubin and alkaline phosphatase. CRP was 3.2 mg/L. HIV I and II was non-reactive. Serum ANA was weakly positive, serum dsDNA was negative. Observed value for Ferritin was 709 ng/ml (30-400). Chest Xray PA view showed enlarged right hilar and left paratracheal lymphnode. Biopsy of Cervical LN showed foci of necrotic and fibrin deposits with plenty of foamy histiocytes constituting the diagnosis of histiocytic necrotising lymphadenitis ? viral/ Kikuchi Fujimoto disease (Figure 1). There was no evidence of caseation necrosis or granuloma formation. Bronchoalveolar lavage as well CBNAAT were negative for evidence of Tuberculosis. PET-CT showed FDG avid enlarged paratracheal, subcarinal and bilateral hilar LNs, largest 22 x 16 mm. There was no evidence of abnormal FDG tracer uptake in skeleton image upto mid thigh. Prior to hospitalisation, patient had had antibiotics and steroid therapy with which patient had no fruitful outcome. The long history of febrile illness and strong family background of tuberculosis prompted us to consider possibility of tuberculosis in the case despite patient having non caseation and non granulomatous evidence in histopathology. Patient was provided anti tuberculous therapy. There was near complete recedance of lymphnode in 6 weeks time and the fever disappeared in 72 hours of the therapy.

The case was finally diagnosed to have Non granulomatous non caseating cervical tuberculous lymphadenitis.

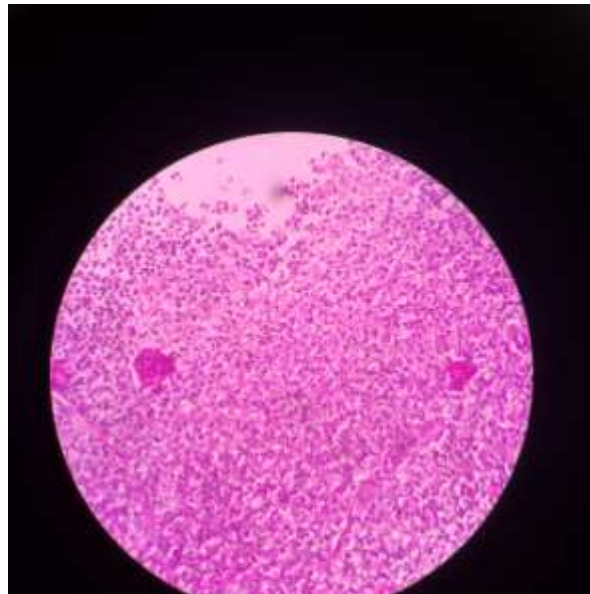


Figure 1:- (40x) Lymphnode Histopathology specimen revealing lymphadenitis with small necrotic foci and karyorrhexis & fibrin deposits. Plenty of foamy histiocytes seen. s/o ? Histiocytic Necrotizing Lymphadenitis (Kikuchi's disease).

Discussion:-

Clinical setup of Tuberculosis typical or non-granulomatous presentations have close similarities. In practice as in the present case patient had undisputedly long history of one year of febrile illness and slow increasing size of cervical lymphnode. Diagnosis falls in the grey zone when one finds noncaseating non granulomatous histopathology of the tissue. Supporting evidences of leukopenia, absence of positivity of Mantoux test, weakly positive ANA, raised ferritin and marginally raised liver enzymes favored diagnosis of ? Immune related histiocytic necrotising lymphadenitis. In view of the non caseating non granulomatous cervical adenopathy, one year history of

febrile illness, significant weight loss and family background of positive tuberculosis in father who died of the same, and further 3 other members in the joint family receiving treatment for Tuberculosis. This has inclined us to consider the case to be tuberculosis with non-granulomatous noncaseating lesion.

Strikingly the patient had shown subsidence of febrile illness within short period of 72 hours and recedance of lymph node in ensuing 6 weeks with antitubercular therapy. Fever never recurred and the patient had gain in weight and sense of wellbeing in ensuing 6 weeks. In the case, CBNAAT was negative could be attributed for low load of microorganisms in BAL sample. (4)

Varied causes of noncaseating granulomas are described in the literature. Commonly reported conditions are Sarcoidosis, Non-Hodgkins lymphoma, Histiocytosis X, Drug reactions, Kikuchi's disease, Atypical tuberculosis, Cat scratch disease and Wegener's granulomatosis(5). The most common form of extrapulmonary tuberculosis is tuberculous cervical lymphadenitis. The condition commonly caused by Mycobacterium tuberculosis though atypical mycobacteria such as Mycobacterium avium and Mycobacterium kansasii have been reported especially with HIV and immunologically suppressed conditions. Five stages involving tuberculous lymphadenitis is described by Jones and Campbell, with enlarged mobile discrete enlargement to abscess formation and sinus tract formation(1).

Kikuchi's disease was considered histopathologically on lymph node biopsy with patchy presence of coagulation necrosis, absence of granulomatous reaction or caseating necrosis, the possibility of tuberculosis was not considered initially. There are reports of non caseating non granulomatous tuberculosis which have been erroneously diagnosed with Kikuchi's disease(2). Importance of clinical examination and family history when positive need attention for consideration of the entity.

Conclusion:-

We suggest that the countries like India where tuberculosis is endemic, a strong family history of tuberculosis, and clinical background despite a demonstrable non caseating non granulomatous lesion makes the diagnosis of tuberculosis more comfortable when given a thought.

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