

Histiocytic Necrotising Lymphadenitis (Kikuchi's Disease) [A 5 Year Histomorphological Study]

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Abstracts: Background: Kikuchi's disease is a rare, benign, self-limiting disease, mainly involving the lymph nodes of young people. The disease has unknown etiology. Clinical symptoms and basic investigations in a patient often leads to a misdiagnosis, due to similar findings in other lesions like, lymphomas and chronic granulomatous inflammations of lymph nodes like tuberculosis. Lymph node biopsy shows characteristic diagnostic features. Methods: We studied all lymph node biopsies received in department of pathology & from other private laboratories in Rural and Urban areas, in & around Bareilly region of North India, in 5 years (2006-2010). Relevant clinical data was collected. Findings were correlated with previous studies. A total number of 1015 cases were examined. Results: A total of 15 cases showed histopathological features of Kikuchi's disease. Most number of cases was seen in females, in the age group of 20-25 years. Patients presented with fever and lymphadenopathy, with a clinical provisional diagnosis of tuberculosis in maximum number of cases. Conclusion: Necrotising lymphadenitis has a striking predilection for cervical lymph nodes of females and is usually accompanied by fever. Most commonly, this disease is mistaken for tuberculosis or Lupus Lymphadenitis. Detailed clinical examination and characteristic histopathological findings help in diagnosing these lesions. [Mohan N et al NJIRM 2011; 2(4) : 26-29]

Key Words: Kikuchi's disease, Necrotising lymphadenitis

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Introduction: Histiocytic necrotising lymphadenitis, also known as Kikuchi's Disease, is a rare, non-cancerous enlargement of the lymph nodes. The disease is seen in young people, and more commonly amongst females¹. It is a self-limiting and benign disease, the cause of which is unknown. Infectious and autoimmune etiologies have been proposed to be usually playing the role². Lymphadenopathy in this disease resolves over a period of several weeks to six months.

Patient's of Kikuchi's disease present with fever, lymphadenopathy, skin rashes & headache. The symptoms and other investigative findings overlap with other diseases and result in misdiagnosis in some patients. FNAC of lymph nodes, shows necrosis & inflammation, which is again inconclusive². Lymph node biopsy is the diagnostic modality, and shows characteristic features of Kikuchi's disease.

Material and Methods: Present study was done Rural and Urban areas, in & around Bareilly region of North India.

Unit of Study : All resected lymph node biopsies received in the department of pathology and from other private laboratories.

Nature of Study : The study includes all resected lymph node biopsies received at Department of Pathology, Rohilkhand Medical College & Hospital, Bareilly and from other private laboratories in & around Bareilly, after taking consent from patients and permission from Institutions' Ethical Committee(IEC).

Study period: 5 years (2006 – 2010)

Sample Size: Total no. of cases was 15.

Study Schedule: An elaborate schedule was prepared before undertaking the study. A detailed clinical history and data was recorded from the patients, after documented consent from all patients, who underwent surgery. All specimens were subjected for histopathological examination. Gross and microscopic features, after standard processing, were studied in detail and recorded.

Analysis: The information collected from the history & examination was correlated with previous studies done in the similar field and results were compared & correlated.

Result: In our present study, a total of 1015 lymph node biopsies were received in the department, of which 15 (1.48%) were diagnosed with Kikuchi's disease. Majority of the patients were females(79%), giving the male to female ratio to be (M:F) 1:3.75.

Patients presented with non-specific clinical complaints, and majority(84.21%) presented with intermittent fever, along with lymphadenopathy. Amongst the patients with lymphadenopathy, 89.47% had cervical lymph node enlargement, while 10.52% had generalized lymphadenopathy.

A provisional clinical diagnosis of Tuberculosis(84.21%) was given in majority. Others were submitted having suspected lymphomas(10.52%) and few(5.26%) had no given provisional clinical diagnosis.

diagnosed with Kikuchi's Disease showed partially preserved architecture of lymph node. Paracortical areas of patchy necrosis were seen. Necrotic foci showed eosinophilic deposits and karyorrhectic debris. Aggregates of histiocytes, immunoblasts and plasmacytoid monocytes were also appreciated. Absence of intact granulocytes (neutrophils & eosinophils) was however evident. All cases diagnosed, showed these characteristic features on microscopy.

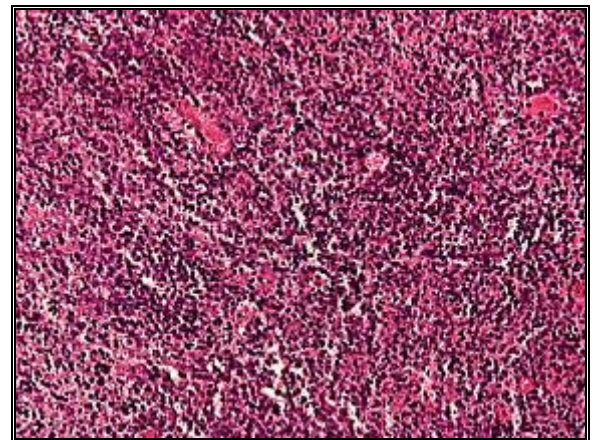


Fig.1. Effaced nodal architecture

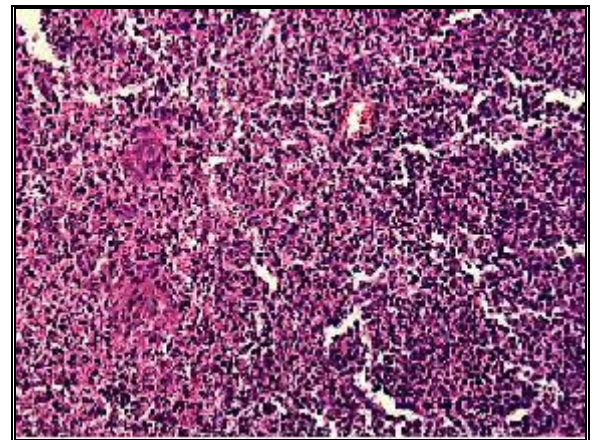


Fig.2. Patchy necrosis with histiocytic aggregates

Table 1. Age Distribution

Age (years)	Number	%
15 – 20	3	20.0
20 – 25	5	33.33
25 – 30	3	20.0
30 - 35	4	26.67
Total	15	100

Table 2. Gross Morphology (Size)

Size (cm)	Number	%
0.5 – 1.0	1	6.67
1.0 – 1.5	3	20.0
1.5 – 2.0	6	40.0
2.0 – 3.0	5	33.33
Total	15	100.0

Table 3. Gross Morphology (Appearance)

Lymph Node	Number	%
Intact	10	66.67
Fragmented	5	33.33
Total	15	100.0

The sections from processed tissue were examined in detail for microscopic features. The sections

Discussion: The cases were included from tertiary institutes as well as referral centres in and around Bareilly region of North India. The observations in our study were correlated and compared with that of previous studies and analysed.

The female to male ratio(3.75:1) in our study, was in accordance with that observed in a study by Dorfman et al, who gave a ratio of 4:1 in his study², however it was higher when compared with those

in other studies, d'Agay MF et al (1.56:1)⁸, Tsang et al (2.75:1)⁴, Kuo et al (1.1:1)⁵ and few other studies^{2,3,4}.

The patient's age group of 15 – 35 years in our series correlated well with that observed by Pilari et al (10-48years)¹, while other studies showed a more broad age spectrum, with patients as old as 75years of age².

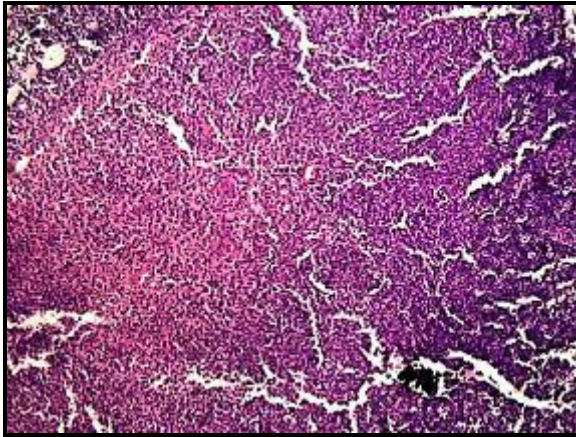


Fig.3.Paracortical patchy necrosis

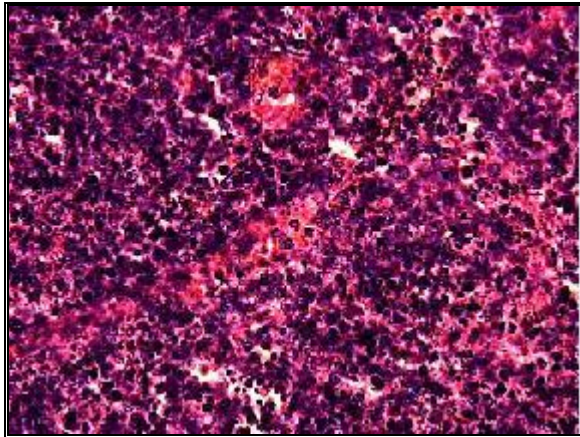


Fig.4. Karyorrhectic debris and eosinophils

In our series, 84.21% patients presented with history of fever. This was higher than that observed in other studies by Pilari et al (50%)¹, Kuo et al (48.4%)² and other authors^{3,4,6,7}. 89.47% of the patients showed cervical lymphadenopathy at the time of presentation in our study, which was comparable with that of other studies by Dorfman et al (70%)², Tsang et al (94%)⁴, and Kuo et al (97%)⁵, thus stressing upon the fact that cervical lymph nodes are most commonly involved in Kikuchi's disease and associated fever should

always alert the clinician of this differential diagnosis.

In our series, 10.52% of the patients presented with generalised lymphadenopathy, which was comparable with that of other studies, d'Agay MF et al (11.3%)⁸, and Pilari et al (22.2%)¹ who showed a little higher incidence.

In our series most numbers of lymph node specimens were between 1.5 to 2.0cms (40%) and all specimens were within 0.5 – 3.0cms, while that seen by Kuo et al² was 0.5 – 7.0cms.

Table 1. Comparison of Sex Distribution:

Authors	Sex Ratio (F:M)
Pilari et al (1982) 1	2.85 : 1
Dorfman et al (1988) 2	4 : 1
d'Agay MF et al (1990) 8	1.56 : 1
Tsang et al (1994) 4	2.75 : 1
Kuo et al (1995) 5	1.1 : 1
Present study (2010)	3.75 : 1

Table 2. Comparison of Cervical lymphadenopathy:

Authors	%
Pilari et al (1982) 1	55.5
Dorfman et al (1988) 2	70.0
d'Agay MF et al (1990) 8	97.5
Tsang et al (1994) 4	94.6
Kuo et al (1995) 5	97.0
Present study (2010)	89.47

Conclusion: Histiocytic necrotising lymphadenitis is a self-limiting, idiopathic, benign enlargement of lymph nodes, involving predominantly the cervical region lymph nodes. Patients present with fever and other generalised symptoms of inflammatory disease. Striking predilection for young females is observed.

The disease is mistaken clinically and routinely with other chronic inflammatory lesions like tuberculosis and lupus lymphadenitis or with lymphomas. Detailed clinical examination and characteristic histological features of lymph node biopsies are diagnostic for Kikuchi's disease.

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