

## Kikuchi

:

1

2

: Kikuchi

CT

Kikuchi

CT

43 : 28 , 4 7 12  
3 CT

CT (n=7) 가 (6/7)  
(2/7), (5/7), (2/7)  
(1/7) (7/7)  
(7/7) (6/7), (5/7)  
(1/7) (1/7) 7 6  
(6/7), (5/7), (4/6) (1/1)  
(2/6) (1/7), (2/7),  
( 60%)  
( 40%)

1mm 7mm  
(23%, 136/599) (14%, 82/599) (64%, 381/599)  
(92%)

: CT

Kikuchi

CT

Kikuchi  
histiocytic necrotizing lymphadenopathy)

(subacute  
,

(1,2). Kikuchi  
CT)

(  
(3,4),  
(5,6)

(1).

가

Kikuchi

Kikuchi

CT

CT

1  
2

1999 4 16

1999 8 10

1995 9 1998 2 (n=7) 가  
 Kikuchi 7 (6/7)  
 CT(Shimadzu 5000TX, Kyoto, Japan) (2/7), (5/7), (2/7)  
 10mm, 10mm (1/7)  
 가 4 , 가 3 12 43 (7/7)  
 28 (spinal accessory chain, 7/7)  
 Som (7) (6/7), (submental node, 5/7)  
 (submandibular nodes) (Fig. 1, 2). (supraclavicular n-  
 (internal jugular chain) 15mm ode, 1/7) (axillary node, 1/7) 7  
 9mm , 10mm 6 (Fig. 2) (6/7),  
 (5/7), (4/6) (1/1)  
 (1/7), (2/7), (2/6)  
 (Fig. 1). (7/7),  
 (5/7), (3/5), (1/6)  
 (Fig. 1, 2).  
 ( 60%)  
 Rouviere (Fig. 1B, 2A). ( 40%)  
 가  
 55%(38/75), 42%(34/81), 18%(15/85), 31%(9/29),  
 23%(18/77), 54%(44/82) 58%(39/67)  
 (Fig.  
 1C, 2A). 1mm 7mm ,  
 (64%, 381/599) (23%,  
 CT 136/599) (14%, 82/599)  
 (H & E, (92%, 550/599) (Fig. 1C, 2A).  
 ×20) 가  
 (Fig. 1, 2), (7/7),  
 (H & E, ×400) (6/7), (2/6)

Table 1. Summary of Cervical Lymphadenopathies in All Cases(n= 7)

Case No.	Age/Sex	Distribution	Enhancement pattern	No. & location of intranodal low density*	Extranodal extension	Aggregation
1	F/12	both SM, IJC & SAC left axilla	homo and inhom	multiple, central & peripheral	SM, IJC, SAC	SAC
2	F/30	Sm, right SM, both IJC, SAC & SC	homo and inhom	multiple, peripheral	SM, IJC, SAC	IJC, SAC
3	M/43	Sm, both SM, IJC & SAC	homo and inhom	multiple, peripheral	IJC, SAC	Sm, IJC, SAC
4	M/19	both IJC, right SAC	homo and inhom	single or multiple, peripheral	IJC, SAC	IJC, SAC
5	M/37	Sm, both SM, IJC & SAC	homo and inhom	multiple, peripheral	IJC	Sm, IJC, SAC
6	M/27	Sm, both SM, IJC & SAC	homo and inhom	multiple, peripheral	SAC	all nodal groups
7	F/28	right Sm, both SM, IJC & SAC	homo and inhom	multiple, central & peripheral	IJC, SAC	SAC

\*: Number and location of intranodal low density in inhomogeneously enhanced nodes, All cases had variable sized(1-7mm) intranodal low densities in inhomogeneously enhanced nodes.

homo: homogeneous, inhom: inhomogeneous

IJC: internal jugular chain, SAC: spinal accessory chain, SM: submandibular group, Sm: submental group, SC: supraclavicular group

(Table 1).

1

CT

, CT

(2,3).

12

43

4

3

(Fig. 1D, 2B).

가(lymphocytosis)

(2-

4,6).

Kikuchi

(7/7)가

(6/7)

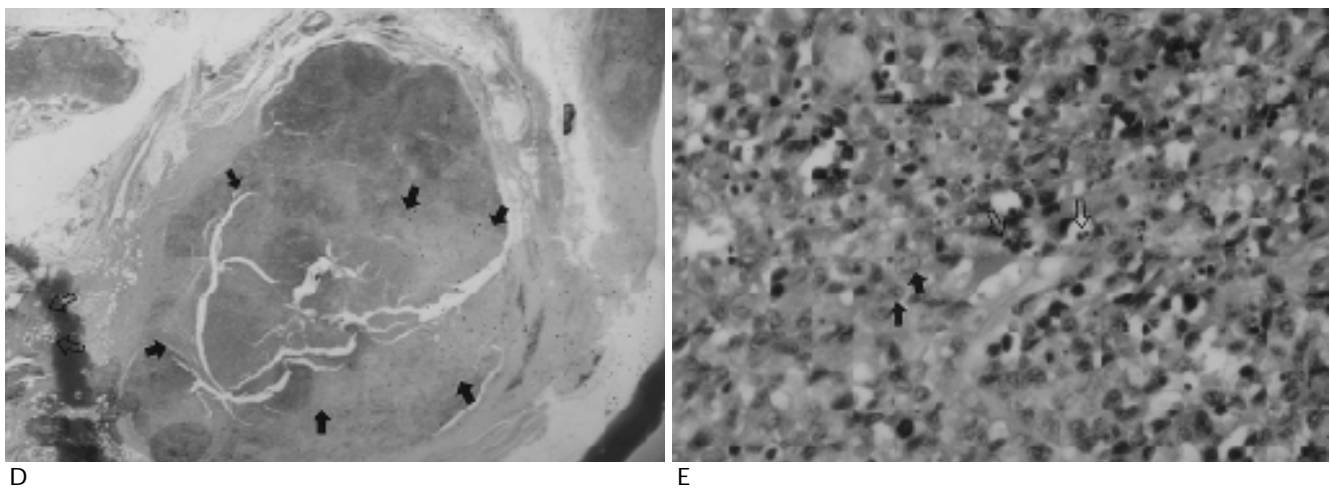
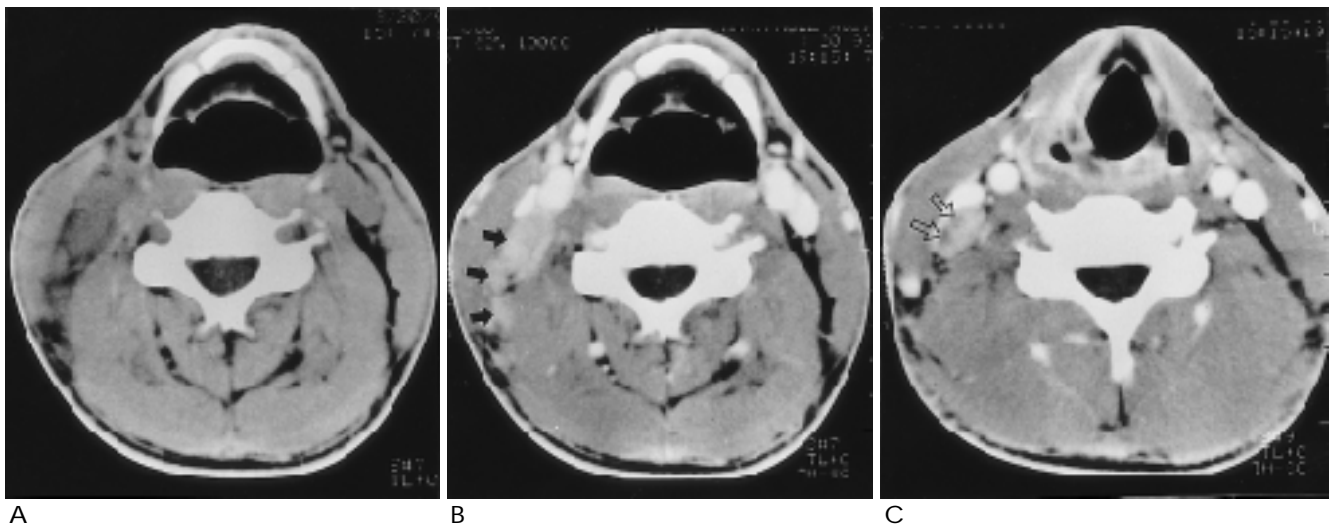


Fig. 1. 19-year-old man with palpable, tender mass in right mandibular angle for 2 weeks, and mild leukopenia.

A. Precontrast axial CT scan at the level of hyoid bone shows multiple enlarged and aggregated lymph nodes in right internal jugular and spinal accessory chains with ill-defined margin.

B, C. Postcontrast axial CT scans at the level of A(B) and just below A(C) show some nodes with homogeneous enhancement(arrows), and others with inhomogeneous enhancement due to two, non-enhancing peripheral low density foci of necrosis(open arrows). The loss of fat plane adjacent to affected nodes by extracapsular extension is also seen.

D. Microscopic finding(H&E,  $\times 20$ ) shows residual lymphoid follicles and focal extensive tissue necrosis with whitish discoloration(arrows). Focal extranodal invasion(open arrows) is also noted.

E. Microscopic finding(H&E,  $\times 400$ ) shows large accumulation of pallor staining histiocytes(arrows), admixed with nuclear debris(open arrows).

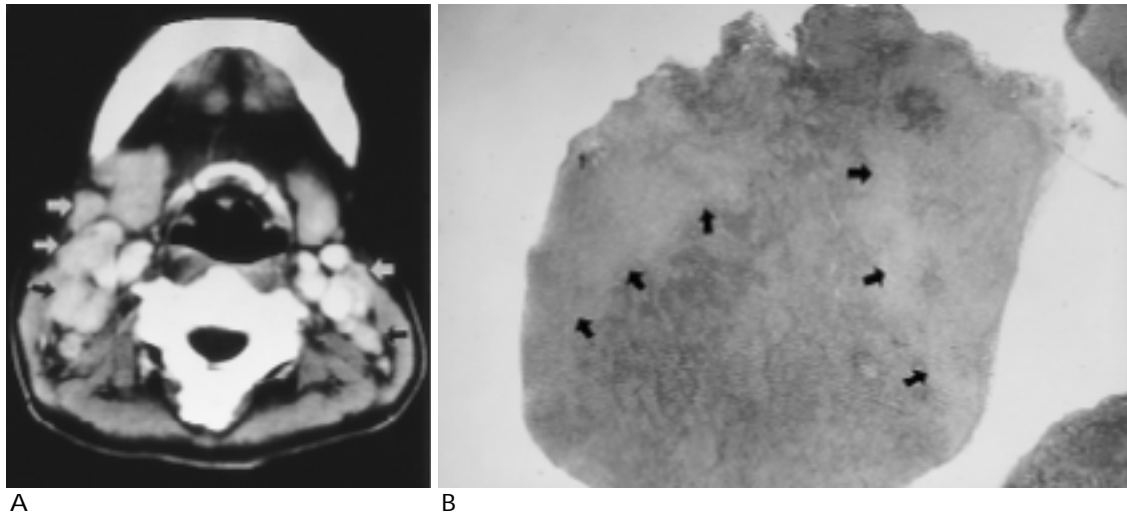


Fig. 2. 30-years-old woman with palpable, tender masses in neck including supraclavicular regions and night sweat for 1 month and elevated lactic dehydrogenase to 2400 level(reference 450). Clinical impression was malignant lymphoma.

A. Postcontrast axial CT scan at the level of lower mandible shows multiple enlarged and aggregated lymph nodes in submental, right submandibular, both internal jugular and spinal accessory chain areas with homogeneous(black arrows) and inhomogeneous enhancement with non-enhancing peripheral low densities(white arrows).

B. Microscopic finding(H&E, × 20) shows several residual lymphoid follicles and a focal confluent tissue necrosis with whitish discoloration(arrows).

Kikuchi  
(systemic lupus erythematosus)  
(2),  
Kikuchi  
가  
Kikuchi  
(7/7), (5/7), (3/5),  
(1/6)  
Kikuchi CT  
가  
T (plasmacytoid T cell)  
(immunoblast)가  
(6).  
가 (1-4). 가 (8).  
Kikuchi  
(intra-  
parotid), (preauricular),  
astinal), (mesenteric),  
(inguinal) (2-4).  
(6/7), (5/7) (7/7), (7/7), Fulcher(3) Kim (4) 1 CT  
(1/7) (1/7) (5) 6 가 가  
5 가 (5)  
, 1  
7 6 (6)  
(6/7), (5/7), (4/6) 2  
(1/1)  
(1/7), (2/7), (2/6)

가 , 가 (15).  
Kikuchi ,  
CT (2,3). 1  
(15), (16).  
(partial volume effect) CT  
CT ,  
CT Kikuchi  
가 , CT  
CT  
Fulcher(3) CT  
(6)  
(6/7) 가 (7/7)  
Kikuchi 가  
21 40 가  
CT  
가 (9-11).  
가 40 CT  
(12-14).  
가 Kikuchi

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## CT Findings of Kikuchi Disease : Correlation with Pathologic Findings<sup>1</sup>

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**Purpose :** To evaluate by means of retrospective analysis of neck CT scans the CT findings which suggest kikuchi disease.

**Materials and Methods :** The authors evaluated the CT findings of seven cases of Kikuchi disease histologically confirmed by excisional biopsy. Four males and three females aged between 12 and 43 (mean; 28) years were included. The authors retrospectively analyzed distribution, bilaterality, the presence of aggregation, the presence of intranodal low density after contrast enhancement, the number, size, shape and location of areas of intranodal low density, and the presence of extracapsular extension in involved nodes, as seen on pre- and post-contrast CT scans. Attempts were then made to correlate the CT with the pathologic findings.

**Results :** The range of conditions affecting patients included palpable(7/7) and tender (6/7) nodes, fever(5/7), night sweat(2/7), leukopenia(2/7), and weight loss(1/7). The internal jugular and spinal accessory chains were involved in all seven cases, followed by the submandibular(6/7), submental(5/7), supraclavicular(1/7) and axillary(1/7) nodes. The findings observed also included bilateral involvement of the internal jugular chain(6/7), the spinal accessory chain(5/7), and the submandibular(4/6) and supraclavicular nodes(1/1). CT revealed that in all cases, pathologic lymph nodes showed aggregation in one or several nodal groups, namely a mixed homogeneous(mean, 60%) or inhomogeneous(mean, 40%) enhancement pattern; intranodal low densities with the number(1 - 7), size(1 - 7 mm) and shape(oval, round, or elongated) of varying degree and predominantly (92%) peripheral location, and extracapsular extension.

**Conclusion :** The CT findings which suggest Kikuchi disease in cervical lymphadenopathy were (1) involvement varying from no intranodal low density to prominent intranodal low densities; (2) intranodal low densities, with the number, size and shape of varying degree and predominantly peripheral location, which were correlated with pathologic findings, including variable intranodal areas of necrosis areas in mainly cortical and paracortical regions of nodes.

**Index words :** Neck, CT  
Lymphatic system, disease  
Lymphatic system, CT

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