의학 석사학위 논문

Kikuchi Disease in Korean Children: Clinical Features and Disease Courses

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Kikuchi disease in Korean Children: Clinical Features and Disease Courses

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- ABSTRACT -

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Background: Kikuchi's disease (KD) is a benign disorder with lymphadenopathy, and prevalent in young Asian women. The presentations mimic some serious diseases, and the biopsy of lymph nodes is the only definite diagnostic tool. We analyzed data from a series of pediatric cases and suggest proper guideline of management.

Methods: The medical records of children under 16 years of age, who underwent lymph node biopsies and received histiopathologic diagnosis of KD at Ajou University Hospital, South Korea from January 2000 to June 2007, were retrospectively reviewed.

Results: Twenty six pediatric patients with KD included 10 boys and 16 girls. Twenty (76.9%) patients had fever as a presenting symptom, and 5 patients (19.2%) had various skin rash. Eleven (55%) cases with fever improved after excision biopsy of lymph nodes. Eight (30.8%) cases treated with steroid showed dramatic responses. Six patients (23.1%) had resolutions of symptoms simply with symptomatic treatments. The recurrence happened in 6 (23.1%) children within a few weeks from the first episode.

Conclusions: KD in Korean children is not rare in young boys, and fever is more common presenting symptoms. Symptoms improved only by the removal of lymph node for excision biopsy. Patients treated with steroid recovered dramatically. We suggest an earlier excision biopsy for patients suspicious with KD and an immediate treatment of cases with severe

symptoms with steroid. The recurrence rate in this study was higher than that in previous studies, therefore, a spell of follow-up period after disappearance of symptoms is advisable for patients with KD.

Key words: Kikuchi disease, Histiocytic necrotizing lymphadenitis, Lymphadenopathy, Children

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I. INTRODUCTION

Kikuchi's disease (KD), also called histiocytic necrotizing lymphadenitis, was first described by both Kikuchi and Fujimoto as a benign, self-limiting disorder of unknown origin (Lin et al., 2005; Chen et al., 2006; Bosch et al., 2004). Generally, KD has been reported to have a predilection for young Asian women, and has seldom been reported in children (Lin et al., 2005; Chen et al., 2006). It manifests clinically with febrile lymphadenopathy, typically in the head and neck lesions (Lin et al., 2005). The initial clinical presentations easily mimic malignancies or other serious infections that require specific and risky treatment such as chemotherapy. The definite diagnosis of KD can reliably be made only via histiopathologic study from the biopsy of lymph nodes affected. The clinical course of KD is usually benign and improves spontaneously without specific cares (Poulose et al., 2005). Little has been written in the pediatric English literature about the analysis of its specific characteristics or guideline of management. We report the analysis of data from a series of 26 pediatric cases collected over 6-year period at a single medical center of South Korea and would suggest proper guideline of management for patients with KD.

II. MATERIALS AND METHODS

The medical records of children under 16 years, who underwent lymph node biopsies and received a histiopathologic diagnosis of KD at Ajou University Hospital, South Korea from January 2000 to June 2007, were retrospectively reviewed. All diagnoses of KD were confirmed by professors of pathology. The following informations were collected and analyzed : the gender; characteristics of lymphadenopathy; associated clinical symptoms such as fever or skin rash; laboratory findings; treatment. This study was approved by the Ajou University Institutional Review Board (IRB No.; AJIRB-CRO-07-037)

III. RESULTS

Twenty six pediatric patients with KD were included, and there were 10 (38.5%) boys with male:female ratio of 1:1.6. One child was younger than 6 years old, and 8 (30.8%) children were younger than 10 years old. All cases had experienced normal birth history and completed the scheduled vaccinations recommended by Korean Academy of Pediatrics. No patient had any recent travel to foreign countries. In all except two cases, the cervical lymph nodes were involved. One case had left axillary lymphadenopathy and the other had left

Table 1. Characteristics of lymph nodes affected with KD

Result	Number of children (%)
Site of lymphadenopathy	
Right midneck	4 (15.4%)
Left midneck	9 (34.6%)
Both midneck	3 (11.5%)
Submandibular	5 (19.2%)
Supraclavicular	3 (11.5%)
Other	2 (7.7%)
Size of lymphadenopathy (cm in max. diameter)	
<2	10 (38.5%)
2-4	13 (50%)
>4	3 (11.5%)
Number of lymphadenopathy	
Single	13 (50%)
Multiple	13 (50%)
Tender lymphadenopathy	11 (42.3%)
Fixed lymphadenopathy	5 (19.2%)

inguinal lymphadenopathy. On the initial physical examination, multiple nodes were affected in 13 (50%) cases and the greatest diameter of the enlarged lymph nodes ranged from 1 to 6 cm. The tenderness, adherence to surrounding tissue or location of lymph nodes affected is described in Table 1. The interval between the onset of symptoms and lymph node excision biopsy ranged from 4 days to 2 years. However, except one, the others had less than 2 months interval, and the mean interval was 29.1 days. One case had very long interval (2 years) to biopsy, because she had just simple and single cervical lymphadenopathy without any other symptoms. Twenty (76.9%) patients had fever as presenting symptoms, and the duration of fever before visit to our hospital ranged from 0 day to 2 months (mean; 9.7 days). Five (19.2%) children had various skin rashes, one child also had hepatosplenomegaly,

Table 2. Clinical characteristics of children with KD

Result	Number of children (%)
Gender	
Male	10 (38.5%)
Female	16 (61.5%)
Age (year)	
<6	1 (3.8%)
6-10	7 (26.9%)
>10	18 (69.2%)
Hepatosplenomegaly	1 (3.8%)
Fever	20 (76.9%)
Skin rash	5 (19.2%)
Associated symptoms	14 (53.8%)
Use of antibiotics	21 (80.8%)
Use of steroid	8 (30.8%)

Table 3. Laboratory data of children with KD

Laboratory tests(units)	Results
WBC (x 10^3 /μL)	4156 (range: 1530-8200)
Neutrophil (/μL)	1972 (range: 779-4346)
Lymphocyte(/μL)	1724 (range: 275-3725)
ESR (mm/hr)	38.2 (range: 5-79)
CRP (mg/dL)	0.4 (range: 0.03-7.2)
LDH (U/L)	457.4 (range: 138-811)
AST(SGOT) (U/L)	36.0 (range: 21-66)
ALT(SGPT) (U/L)	28.8 (range: 10-87)
Positive autoimmune test	3 (18.8% of tested 16 cases)
Positive EBV test	12 (60% of tested 16 cases)

Abbreviation: WBC = white blood cells; ESR = erythrocyte sedimentation rate; CRP = C-reactive protein; LDH = lactate dehydrogenage; AST = aspartate aminotransferase; ALT = alanine aminotransferase; EBV = Epstein-Barr virus

and 14 (53.8%) children complained of other associated symptoms such as flu-like symptoms, abdominal pain, or joint pains. (Table 2) Leukopenia (<3.5 x 10^9/L) was noted in 8 (30.8%) cases, however, there was no case of leukocytosis (>10 x 10^9 /L). The mean neutrophil and lymphocyte count was shown in Table 3. Three (11.5%) patients had atypical peripheral blood lymphocytes (1% to 4% of total WBC counts), however, they all had anti-Epstein-Barr virus nuclear antigen (EBNA), but not Epstein-Barr virus (EBV) IgM. The mean level of erythrocyte sedimentation rate (ESR) was 38.2 mm/hr, and the median C-reactive protein (CRP) level was 0.4 mg/dL. The mean level (1.19 mg/dL) of CRP was slightly high, but just one case had high level of CRP (7.2 mg/dL), and most others had CRP level within normal range. The case with high level of CRP had evidence of other infection such as cough, sputum, and elevated level of mycoplasma antibody (1:320). The mean level

of lactate dehydrogenage (LDH) and liver enzymes was described in Table 3. Positive autoimmune screening test was noted in 3 (18.8%) of 16 patients tested: Two patients had antinuclear antibody (ANA) titer of 1:80, and one patient had anti-DNA titer of 1:160. Serologic tests for EBV showed positive reactions in 12 of 20 cases tested, but just 3 cases had EBV IgM and most of other cases had anti-EBNA, indicating on old infection (Table 3). Microbiological cultures did not yield any organism. Twenty one (80.8%) patients were empirically treated with antibiotics, which didn't affect the resolution of their symptoms. On the other hand, 8 (30.8%) patients were treated with steroid and their fever was dramatically resolved within 36 hours from the start of steroid treatment. One single fact that 11 (42.3%) patients improved immediately after excision biopsy of affected lymph nodes attracted our attention. They all became afebrile within 48 hours after the excision biopsy and, especially, 7 (26.9%) cases within 24 hours. Recurrence of fever or lymphadenopathy happened in 6 (23.1%) children within 4 weeks from the first episode. In 4 cases (15.4%) out of these, recurrence appeared before excision biopsy of lymph nodes affected. Two (7.7%) cases had relapse of symptoms after taper of steroid as well as confirmation of biopsy, however, the symptoms were resolved again at the restart or dose-up of steroid.

IV. DISCUSSION

KD is known to be predominant in Asian young women in third decades, and children are seldom affected and patients younger than 10 years are more rarely described (Chen et al., 2006; Lin et al., 2005). This disease has recently been reported worldwide, and reports from Eastern countries seem to indicate that there is no gender preponderance (Adhikari et al., 2003; Bosch et al., 2004; Poulose et al., 2005). In the present pediatric series, boys afflicted with KD were not rare; 38.5% of all cases. Furthermore, the youngest child in this study was 5 years old, and 30.8% were younger than 10 years. The most common presenting feature of KD is unilaterally localized cervical lymphadenopathy, that is sometimes tender, firm, discretely multiple, and small (Bosch et al., 2004; Boula et al., 2005; Chen et al., 2006; Lin et al., 2005; Poulose et al., 2005; Schofer et al., 2005). Similarly, approximately half of all patients in this series, complained of multiple and tender lymphadenopathy, and unilateral involvement dominated. The size of all enlarged nodes was less than 6cm. KD Lymphadenopathy manifests typically on the head and neck. However, involvement of axillary, mesenteric, mediastinal, inguinal, intraparotid, iliac, celiac, peripancreatic, and rarely generalized lymph nodes has also been reported (Adhikari et al., 2003). Similarly, just two cases in this series had lymphadenopathy on others locations than cervical area; one had on axilla and the other on inguinal area. In addition to lymphadenopathy, 30% to 50% of patients with KD have fever (Bosch et al., 2004; Chuang et al., 2005). In our series, fever was noted in 20 (76.9%) cases, and the mean duration of fever before their visit to hospital

was 9.7 days. Extra-nodal involvement is not common in KD, but malaise, fatigue, myalgias, and heterogenous skin lesions are comparatively common extralymphatic manifestations (Schofer et al., 2005). The cutaneous lesions include erythematous macules, papules, plaques, and nodules, and they are often described as rash, most commonly on face (Bosch et al., 2004; Chen et al., 2006; Poulose et al., 2005; Yen et al., 2004). In this series, 5 (19.2%) children had various skin rashes. One girl had prolonged fever, cervical lymphadenopathy, and skin rash. Her rash looked like malar rash of systemic lupus erythematosus (SLE) just on face at first, but later changed to generalized erythematous ulcerative maculopapular rash on whole body. The biopsy of her skin lesion showed histopathologic features of KD. Less common manifestations include gastrointestinal symptoms, weight loss, night sweats, hepatosplenomegaly, arthralgias, headache, ataxia, parotid enlargement, aseptic meningitis, thyroiditis, myocarditis, polymyositis, bone marrow hemophagocytosis, or interstitial lung disease (Boula et al., 2005; Poulose et al., 2005; Scagni et al., 2005; Scholfer et al., 2005). Over half of all patients in this series complained of the above-mentioned various symptoms. The etiology of KD remained largely unknown, although various viral or immunologic pathogenesis has been suggested in many literatures. The differential diagnosis of KD includes malignancy such as malignant lymphoma, immunologic diseases, notably SLE, Kawasaki's disease, Still's disease, cat-scratch disease, and various infectious diseases such as toxoplasmosis, Brucella or Yersinia lymphadenitis, cytomegalovirus or hepatitis B virus infection, acquired immunodeficiency syndrome, infectious mononucleosis, and Mycobacterium lymphadenitis (Bosch et al., 2004; Kamimura et al., 2005; Lin et al., 2005; Poulose et al., 2005; Schofer et al., 2005). Actually, KD may be secondary to any

pathogenesis, even if it's not directly caused. KD might represent an exuberant T-cell-mediated immune response to various stimuli in genetically susceptible persons. To further suggest a genetic predisposition, some HLA class II genes, which are common in Asians but not in whites, are more frequently observed in patients with KD (Boula et al., 2005; Lee et al., 2004; Parappil et al., 2004; Scagni et al., 2005). This might explain the predominance of KD in Asians. KD has been suggested to have no risk to other family members (Pileri et al., 2005). Patients in this study didn't also have any family members with KD. Studies on KD frequently address the association between KD and SLE (Bosch et al., 2004; Poulose et al., 2005; Rao et al., 2006; Santana et al., 2005; Wang et al., 2004). The two diseases share not only clinical similarity, but also pathologic resemblances (Lin et al., 2005; Scagni et al., 2005). Eisner et al mentioned that perhaps KD and SLE share a common inciting event, such as exposure to an environmental or infectious agent, that can produce either disorder (Lin et al., 2005). There are some reports showing late development of SLE after its original diagnosis of KD; from few months to 5 years later (Chen et al., 2006; Scagni et al., 2005). In rare cases KD has been associated with other autoimmune disorders such as antiphospholipid antibody syndrome, Still's disease, or mixed connective tissue disease(Chen et al., 2005; Wang et al., 2004). Pileri et al suggest that laboratory tests, including C3, C4, anti-Sm, and LE cells, are needed to rule out SLE before making the diagnosis of KD (Pileri et al., 2005). Positive autoimmune screening test has been noted in some patients tested, however, no KD patients in this study developed SLE or any other autoimmune disorders during follow-up period. Laboratory tests are helpful for ruling out the causes of lymphadenopathy, but not definite tools for detecting KD. KD patients may have mild leukopenia, elevated ESR and

CRP, sometimes increased serum levels of LDH and aminotransferases, or more rarely leukocytosis (Bosch et al., 2004; Lin et al., 2005). About 30% of patients with KD have been reported to have atypical peripheral blood lymphocytes, possibly due to viral cause (Bosch et al., 2004; Poulose et al., 2005). In this study, 3 (11.5%) patients had atypical peripheral blood lymphocytes. However, they had no documented evidences of recurrent viral infection. In this study, leukopenia was noted in 30.8% of cases, but no leukocytosis seen. Slightly elevated ESR was noted. However, most cases had CRP level within normal range, except one patient with pneumonia. Mildly elevated LDH was found in 68.4% of cases tested, and the mean levels of aminotransferases were in normal range. Many previous reports mentioned the possible association of infections of KD (Bosch et al., 2004; Kamimura et al., 2005; Lin et al., 2005; Poulose et al., 2005; Schofer et al., 2005). However, we failed to find clear evidence of the association in this series, because there was no leukocytosis or significant elevation of ESR or CRP as definite evidences of infection. Rather, the elevation of LDH noted in most cases makes it to consider its association with other serious diseases such as malignant lymphoma. In this series, positive EBV test was noted in over half of cases tested, however, just 15% of cases had EBV IgM and most other cases had only anti-EBNA. These are serologic tests, but not tissue test, and the majority were anti-EBNA, meaning old infections. Therefore, it appears to be not justified to suggest that EBV plays causative roles directly in KD. For diagnosis of KD, FNAC (fine needle aspiration cytology) may reveal characteristic features, nevertheless, it's frequently non-diagnositic (Poulose et al., 2005). Definite diagnosis can be established only by open biopsy under the strict collaboration between a clinician and a pathologist. Chen et al noted that longer interval to excision biopsy

induces unnecessary multiple empirical therapies and excessive investigation. Therefore, they recommended an earlier excision biopsy (Chen et al., 2006). In our series, FNAC was performed in 3 cases, but the final diagnoses in all cases were established by excision biopsy. The exclusion of possibility of malignancy is the main purpose of excision biopsy in this series. We uncovered an attractive and important fact: Their symptoms in over half of these cases improved soon after the excision biopsy of affected lymph nodes. They all became afebrile within 48 hours after the excision biopsy, and, especially, within 24 hours in some cases. Indeed, some earlier studies also mentioned similar phenomenon and suggested that the removal of affected lymph node is possibly therapeutic as well as diagnostic (Lee et al., 2004; Wang et al., 2004). Wang et al suggested that the elimination of an inflammatory focus may cause this phenomenon (Wang et al., 2004). Accordingly, earlier excision biopsy seems to be necessary for suspicious patients of KD. After the diagnosis of KD, most authors advise no specific treatment. KD lymphadenopathy usually disappears completely in several weeks without special treatment (Chen et al., 2006; Lin et al., 2005; Poulose et al., 2005). Some authors advocate steroids for faster resolution (Lin et al., 2005; Poulose et al., 2005), whereas acetaminophen or non-steroidal anti-inflammatory drugs (NSAIDs) are typically used for symptomatic control (Yu et al., 2005). Some studies reported successful treatment of steroid-resistant severe KD with intravenous immunoglobulin (Noursadeghi et al., 2006), hydroxychloroquine (Rezai et al., 2004), or antibiotics such as ciprofloxacin (Mahajan and Sharma, 2004). In the present series, 23.1% of patients had resolutions of symptoms without specific treatments. On the other hand, 30.8% of patients were treated with steroid, and their symptoms, especially fever, dramatically disappeared within 36 hours after steroid

administration. In 2 cases, their symptoms relapsed after taper of steroid, but the symptoms were resolved again at the restart or dose-up of steroid: Steroid is thought to be a good choice for a control of severe KD. The fatality related with KD is very low, nevertheless, very few cases of death secondary to myocardial or pulmonary damage have been reported (Chen et al., 2006; Pileri et al., 2005; Poulose et al., 2005). Lin et al mentioned that the use of corticosteroids or immunosuppressants is able to prevent a fatal outcome in cases with increased LDH and serum ANA titers (Lin et al., 2005). Recurrence of KD, which occurs in no more than 1.3% to 4% of patients (Lin et al., 2005; Poulose et al., 2005; Yu et al., 2005), usually happens within few weeks from the first episode (Boula et al., 2005). In the present series, not a few cases (34.6%) had suspicious past history of KD. Recurrence within 4 weeks from the first episode happened to majority of the children (23.1%). However, some children (11.5%) had past history of cervical lymphadenitis or prolonged fever several years ago. The recurrence rate in this study is common in comparison with previous reports. All our cases with recurrence were treated with steroid and the responses were very good.

V. CONCLUSION

We found that KD is not rare in boys and that fever is more common presenting symptoms, in Korean children contrary to previous reports of Asian cases. We cannot conclude any close relationship between infection and KD, however, some cases had evidence of old EBV infection. Therefore, further study on the EBV-KD relations is needed. Positive autoimmune test was noted in some cases, however, no KD patients in this study developed any other autoimmune disorders during follow-up period. It is the most interesting discovery in this study that symptoms such as fever in a large number of cases improved only by the removal of affected lymph node for excision biopsy. As previous reports, the patients dramatically recovered with steroid. Therefore, we recommend an earlier excision biopsy as soon as possible for patients suspicious with KD, and an immediate treatment of steroid for cases with severe symptoms. Finally, the recurrence rate in this study was higher than that of previous studies, and some cases had suspicious past history several years ago. Therefore, we suggest that patients with KD should be followed up for recurrence or possible development to other serious diseases such as autoimmune disease. Especially, a regular and long-term follow-up period should be mandatory.

REFERENCES

1. Adhikari RC, Sayami G, Lee MC, Basnet RB, Shrestha PK, Shrestha HG: Kikuchi-Fujimoto disease in Nepal: a study of 6 cases. *Arch Pathol Lab Med* 127: 1345-1348, 2003

2. Bosch X, Guilabert A, Miquel R, Campo E: Enigmatic Kikuchi-Fujimoto disease: a comprehensive review. *Am J Clin Pathol* 122: 141-152, 2004

3. Boula AM, Bizakis JG, Tsirakis GE, Chimona TS, Stathopoulos EN, Alexandrakis MG: Kikuchi's disease: a benign cause of fever and cervical lymphadenopathy. *Eur J Intern Med* 16: 356-358, 2005

4. Chen CK, Low Y, Akhilesh M, Jacobsen AS: Kikuchi disease in Asian children. *J Paediatr Child Health* 42: 104-107, 2006

5. Chen HC, Lai JH, Huang GS, Gao HW, Chen CH, Kuo SY, Chang DM: Systemic lupus erythematosus with simultaneous onset of Kikuchi-Fujimoto's disease complicated with antiphospholipid antibody syndrome: a case report and review of the literature. *Rheumatol Int* 25: 303-306, 2005

6. Chuang CH, Yan DC, Chiu CH, Huang YC, Lin PY, Chen CJ, Yen MH, Kuo TT, Lin TY:

Clinical and laboratory manifestations of Kikuchi's disease in children and differences between patients with and without prolonged fever. *Pediatr Infect Dis J* 24: 551-554, 2005

7. Kamimura T, Hatakeyama M, Okazaki H, Minota S: Kikuchi's disease involving the supraclavicular lymph nodes and associated with transient eruption. *Rheumatol Int* 25: 143-145, 2005

8. Lee KY, Yeon YH, Lee BC: Kikuchi-Fujimoto disease with prolonged fever in children. *Pediatrics* 114: e752-756, 2004

9. Lin HC, Su CY, Huang SC: Kikuchi's disease in Asian children. *Pediatrics* 115: e92-96, 2005

10. Mahajan VK, Sharma NL: Kikuchi-Fujimoto disease: immediate remission with ciprofloxacin. *Int J Dermatol* 43: 370-372, 2004

11. Noursadeghi M, Aqel N, Gibson P, Pasvol G: Successful treatment of severe Kikuchi's disease with intravenous immunoglobulin. *Rheumatology (Oxford)* 45: 235-237, 2006

12. Parappil A, Rifaath AA, Doi SA, Pathan E, Surrun SK: Pyrexia of unknown origin: Kikuchi-Fujimoto disease. *Clin Infect Dis* 39: 138-143, 2004

13. Pileri SA, Pileri A, Yasukawa K, Kuo TT, Sullivan K: The karma of Kikuchi's disease. *Clin Immunol* 114: 27-29, 2005

14. Poulose V, Chiam P, Poh WT: Kikuchi's disease: a Singapore case series. *Singapore Med J* 46: 229-232, 2005

15. Rao GS, Vohra D, Kuruvilla M: Is Kikuchi-Fujimoto disease a manifestation of systemic lupus erythematosus? *Int J Dermatol* 45: 454-456, 2006

16. Rezai K, Kuchipudi S, Chundi V, Ariga R, Loew J, Sha BE: Kikuchi-Fujimoto disease: hydroxychloroquine as a treatment. *Clin Infect Dis* 39: e124-126, 2004

17. Santana A, Lessa B, Galrão L, Lima I, Santiago M: Kikuchi-Fujimoto's disease associated with systemic lupus erythematosus: case report and review of the literature. *Clin Rheumatol* 24: 60-63, 2005

18. Scagni P, Peisino MG, Bianchi M, Morello M, Sardi N, Linari A, Mastrodicasa L, Madon E, Pecco P: Kikuchi-Fujimoto disease is a rare cause of lymphadenopathy and fever of unknown origin in children: report of two cases and review of the literature. *J Pediatr Hematol Oncol* 27: 337-340, 2005

19. Schofer JM, Tong TC, Tanen DA: Kikuchi's disease: a rare cause of cervical

lymphadenitis and fever. *J Emerg Med* 29: 151-153, 2005

20. Wang TJ, Yang YH, Lin YT, Chiang BL: Kikuchi-Fujimoto disease in children: clinical features and disease course. *J Microbiol Immunol Infect* 37: 219-224, 2004

21. Yen HR, Lin PY, Chuang WY, Chang ML, Chiu CH: Skin manifestations of Kikuchi-Fujimoto disease: case report and review. *Eur J Pediatr* 163: 210-213, 2004

22. Yu HL, Lee SS, Tsai HC, Huang CK, Chen YS, Lin HH, Wann SR, Liu YC, Tseng HH: Clinical manifestations of Kikuchi's disease in southern Taiwan. *J Microbiol Immunol Infect* 38: 35-40, 2005

– 국문요약 –

소아 키쿠치병의 임상적 고찰

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서론: 키쿠치병(Kikuchi disease)은 전세계적으로는 매우 드물지만 특징적으로 동아시아 지역 젊은 여성에게 호발하는 것으로 보고되는, 발열과 경부 림프절종대 등을 주증상으로 하고 자연적으로 호전되는 양성질환이다. 소아 연령에서 발생한 경우, 초기 증상이 림프종 등의 악성질환이나 특수 치료를 요하는 다양한 중증 감염 등과 감별이 어려울 수 있는 이 양성 질환의 임상소견과 진행양상의 특징을 파악하고 바람직한 치료방향을 제시하고자 하였다. 연구대상 및 방법: 2000 년 1 월부터 2007 년 6 월까지 아주대학교병원에서, 병리학적으로 키쿠치병으로 확진받은 16 세 미만 소아의 의무기록을 후향적으로 조사하였다. 결과: 총 26 명의 환아를 분석하였고, 10 명(38.5%)이 남아였다. 1 명을 제외하고 모두 경부의 림프절 종대를 보였다. 20 명(76.9%)이 발열을 함께 호소하였고, 5 명(19.2%)은 피부발진을 동반하였다. 백혈구감소증이 8 명(30.8%)에서 발견되었으나, 백혈구증가증이 있는 환아는 없었다. ESR 과 LDH 값은 평균적으로 약간 증가되었으나, CRP 와 간효소치는 정상범위였다. 관찰기간동안 자가면역질환 등 여타 질환으로 발전된 환아는 없었다.

11 명(55%)에서 림프절절제술만으로 발열의 소실이 발견되었다. 8 명(30.8%)이 스테로이드제제로 치료를 받았고 모두 즉각적인 반응을 나타냈다. 6 명(23.1%)은 증상치료만으로 호전되었다. 발열이나 림프절종대 등의 재발은 6 명(23.1%)에서 관찰되었다. 고찰: 이전에 발표된 아시아지역의 보고에 비해, 한국에서 발생하는 키쿠치병은 남아에서 좀더 흔하고 발열이 주호소 증상임을 발견하였다. 자가면역질환이나 바이러스감염증과의 연관성은 뚜렷하지 않았다. 일부환아에서 림프절절제술만으로 증상의 호전을 관찰할 수 있었다. 스테로이드제제에 대한 뚜렷한 반응성은 이전의 다른 보고들과 유사하였다. 재발률은 이전 연구들에 비해 비교적 높게 나타났다. 결론: 본 저자는 키쿠치병이 의심되는 환아에서는 진단뿐 아니라 치료목적으로도 조기 림프절절제가 필요할 것으로 생각되며, 고열이나 동반증상이 심한 환아의 경우 스테로이드제제의 적극적인 사용을 제안한다. 또한 증상이 소실된 후에도 재발 및 여타 질환으로의 전이 확인 등을 위해 정기적으로 장기간 추적관찰을 추천한다.

핵심어: Kikuchi disease, Histiocytic necrotizing lymphadenitis, Lymphadenopathy, Children