

제주도에서 일본 삼나무 화분에 대한 알레르기성 비염

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Allergic Rhinitis to Japanese Cedar in Cheju Island

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ABSTRACT

Background and Objectives : Abundance of Japanese cedars (JC) in Cheju Island has caused some of the island's residents to suffer from severe allergic symptom in the spring time. This study was carried out to verify the presence of JC allergic rhinitis (AR) in the island. **Materials and Method** : We performed a history survey, skin testing and nasal provocation test to JC and other common allergens for 170 residents who have symptom of AR. We also performed the same tests in 18 Japanese who had history of AR to JC and have lived in Korea more than 3 years. And as a control, skin tests were performed for 581 patients who live in Seoul. **Results** : Positive reactions to JC were seen in 22.4% of the resident group. The prevalence rate was remarkable in the state capital of Cheju. These reactions were associated with conjunctivitis, dermatitis, asthma and food allergy. All the 18 Japanese patients were sensitive to JC. However, the allergic symptoms disappeared within 1 year after the move to Korea. And there were no patients sensitive to JC in the control subjects. **Conclusions** : We confirmed the presence of AR of JC in Cheju island. The distribution is comparatively coincided with JC and/or air pollution and this result indicate that environmental factors can be involved in the manifestation of the disease. (Korean J Otolaryngol 1999;42:1129-33)

KEY WORDS : Japanese cedar pollinosis · Allergic rhinitis · Cheju island.

가 가
⁵⁾⁶⁾
 (Japanese cedar, *Cryptomeria japonica* D.
 Don)
 가 가
¹⁾
²⁻⁴⁾

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 : , 130-050 1

: (02) 958-8482 · : (02) 958-8470

1998. 6. 4 1998. 7. 3

(), (), (), (), ()

1998. 7. 4

7. 5 3

170 가

가

3 18

RAST 9)

1998. 8. 16 가

1996 1 1998 ()

7 581

Torii 1 : 1000 15

0.02 ml 가 20 mm 9 mm

15 histamine

10)

Torii 가

11)

0.5 x 0.5 cm 15

가 6 2가

RAST score 2 (clear positive) 12)

가 RAST

170

91 79 4 70

30 170

69

Table 1. Positive result of allergic tests* in patients of Cheju island n(%)

	JC [†]	DF [‡]	Cockroach	Cat hair	Ragweed
Cheju-city (n=25)	16(64%)	15(60%)	8(32%)	7(28%)	4(16%)
Sogwipo (n=50)	13(26%)	10(20%)	1(2%)	2(4%)	0(0%)
Namwon (n=40)	7(17.5%)	6(15%)	0(0%)	0(0%)	0(0%)
Taejong (n=28)	2(7.1%)	4(14.3%)	1(3.6%)	0(0%)	1(3.6%)
Hallim (n=27)	0(0%)	6(22.2%)	1(3.7%)	0(0%)	0(0%)
Total (n=70)	38(22.4%)	41(24.1%)	11(6.5%)	9(5.3%)	5(2.9%)

*Allergic tests mean allergic skin test and nasal provocation test. Positive result means positive to all test of above

[†]JC : Japanese Cedar, [‡]DF : Dermatophagoides farinae

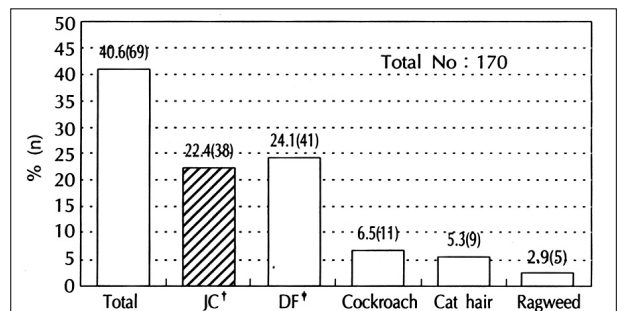


Fig. 1. Positive result of allergic test* in Cheju-island*Allergic tests mean allergic skin test and nasal provocation test. Positive result means positive to all test of above, [†]JC : Japanese Cedar, [‡]DF : Dermatophagoides farinae.

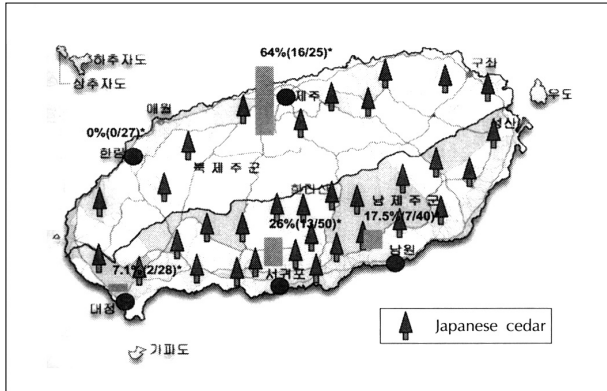


Fig. 2. Positive result of allergic tests[†] to Japanese cedar and Japanese cedar distribution in Cheju-island.
 *%(positive No/total No), [†]Allergic tests mean allergic skin test and nasal provocation test. Positive result means positive to all test of above.

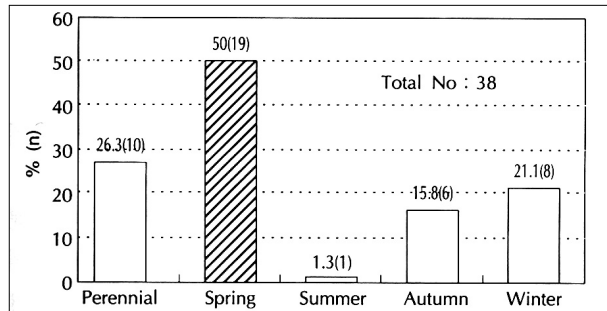


Fig. 3. Seasonal variation of allergic rhinitis symptom in positive Japanese cedar group* in Cheju-island.
 *Positive Japanese cedar group means them of positive to allergic skin test and nasal provocation test to Japanese cedar.

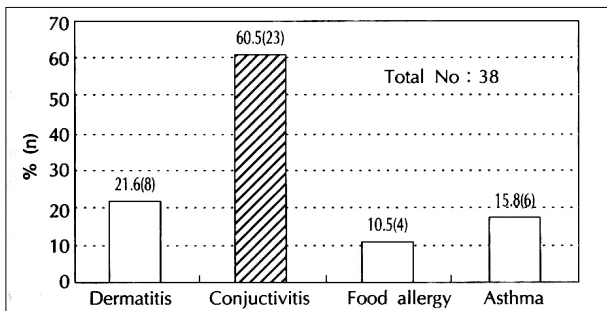


Fig. 4. Associated allergic diseases in positive Japanese cedar group* in Cheju-island.*Positive Japanese cedar group means them of positive to allergic skin test and nasal provocation test to Japanese cedar.

Table 2. Positive result of allergic tests* to the Japanese in Seoul, Korea

	JC [†]	DF [‡]	Ragweed
n(%)	18(100)	3(16.6)	11(0.6)

*Allergic tests mean allergic skin test, nasal provocation test and RAST. Positive result means positive to all test of above
[†]JC : Japanese Cedar, [‡]DF : Dermatophagoides farinae

(Fig. 2).

50%
 26.3%, , 가 ,

(Fig. 3).

60.5% 가
 (Fig.

4).

38 50%가 가

18

RAST

(Table 2)

1.08

581

가

40.6% 38
 22.4% (Table 1).

(Fig. 1).

25

16 64%
 26%, 17.5%, 7.1%

(sugi)
 가 1.5 2 m, 30 40
 m 6 , 9
 10 2 4
 35 μ
 가
 13,000 20 cm 가

100
¹³⁾ 2 3 700 8,000 가
¹⁴⁾ 10%가 가
가
가
1983 ¹⁵⁾ 가
5% 가
22.4%가
50%가
가
가
가

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