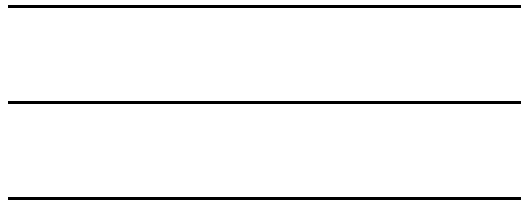


IgE

IgE

2002 12



,

.

,

가

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IgE

가

(,)

가

, 가 ,

가

,

가

90%

가

IgE

가

2

(*Dermatophagoides pteronyssinus*, *Dermatophagoides farinae*)

가

,

가

가

Alternaria

IgE

2001 10

2002 8

26

33

CAP system FEIA

4가

IgE

FEV₁/FVC, FEV₁, FEF_{25-75%}

FEV₁

FEF_{25-75%}

(p<0.05).

가 *Dermatophagoides farinae* IgE
 p<0.05) FEV₁(r= - 0.38, p<0.05) FEF_{25-75%}(r= - 0.39,
 .
 IgE
 .
 IgE 가 *Dermatophagoides farinae*
 가
 가 .

IgE : , , , , ,

IgE

< >

가

가

(,)

가

.^{1,2}

, 가 , ,

가

.³⁻⁶

가

90%

가

.⁷ Gergen

^{8,9}

Alternaria

Perzanowski ¹⁰⁻¹³ *Alternaria*

Aspergillus fumigatus

IgE 가가 FEV₁

FEF_{25-75%}

.^{3,14} Schwartz

¹⁵ 6~12

FEV₁

, Joseph ¹⁶

, *Alternaria*

가

(remodeling)

가

6,9,17,18
가
IgE 가

Dermatophagoides pteronyssinus(Der p), *Dermatophagoides farinae*(Der f), *Alternaria*,
IgE

FEV₁, FEV₁/FVC, FEF_{25-75%} 3가

IgE
IgE

1.

가.

2001 10 2002 8

IgE

, 7 26 33
가 , 가 ,
가 가

가

19-22

2.

가.

IgE
IgE CAP system FEIA(Pharmacia, Sweden)
(*Der p*, *Der f*), *Alternaria*,
IgE 0.35KU_A/L

Medical Ltd, England)

Microlab 3300(Micro
. FEV₁, FEV₁/FVC,

FEF_{25-75%}

T - test

Pearson chi - square

IgE

3가

ANOVA test

Pearson correlation

0.05

p - value

1.

2001 10 2002 8
 26
 33
 가 20 가 6 가 22 ,
 가 11 . 10.7
 , 9.6 (1).

1.

()	26	33
()	10.7 ± 2.	9.6 ± 2.0
(:)	20:6	22:11
Total IgE(KU _A /L)	362.3 ± 475.6	167.1 ± 145.2
±		

2.

FEV₁ FEF_{25-75%}
 FEV₁/FVC (2).

2.

Corrected FEV ₁ (%)	79.7 ± 15.8*	88.6 ± 12.4
Corrected FEV ₁ /FVC(%)	102.0 ± 10.5	107.3 ± 7.1
Corrected FEF _{25-75%} (%)	82.3 ± 26.9*	107.6 ± 22.9

*p value<0.05

3.

IgE

가
가
IgE
Der p *Der f* IgE
(3).

3.

IgE

	(%) n=26	(%) n=33
<i>Der p</i>	16(61.5)*	11(33.3)
<i>Der f</i>	15(57.7)*	9(27.3)
<i>Alternaria</i>	2(7.7)	1(3)
Cockroach	3(11.5)	0

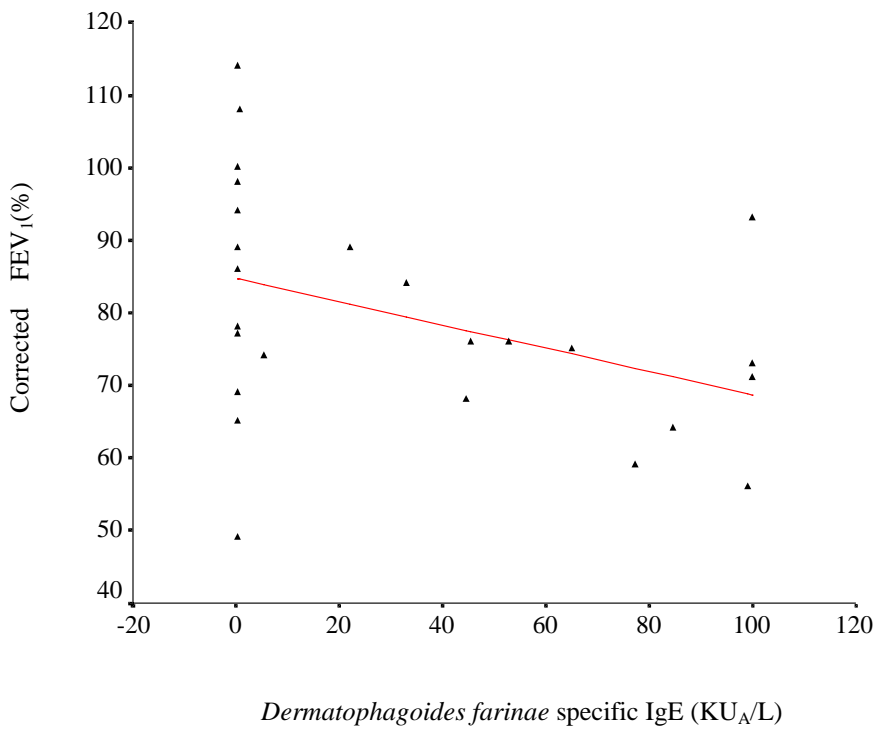
*p value<0.05, *Der p* : *Dermatophagoides pteronyssinus*,
Der f : *Dermatophagoides farinae*

4.

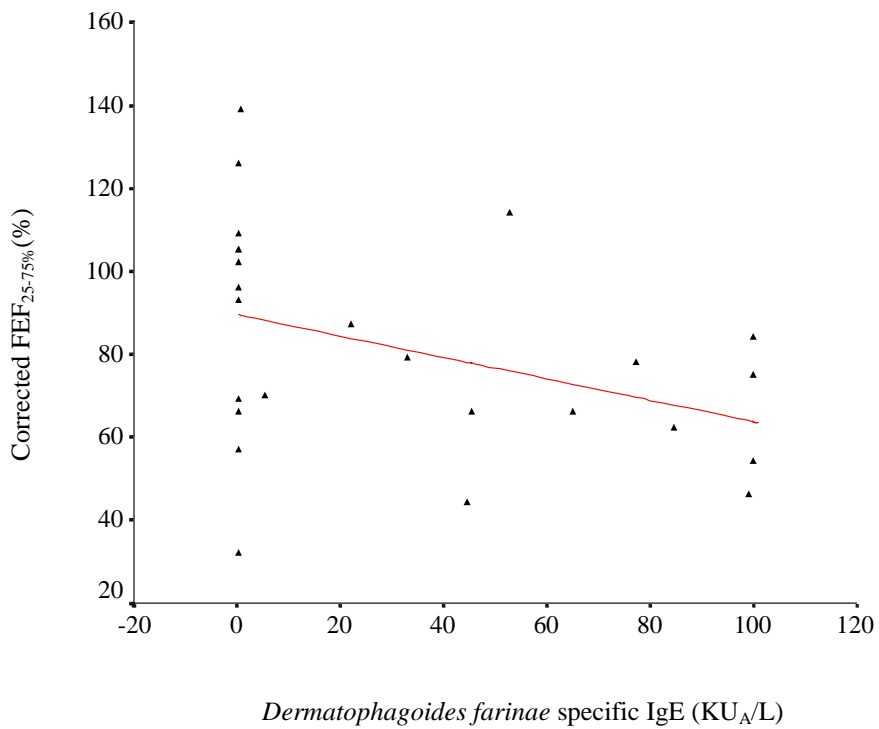
IgE

Der p, *Alternaria*, FEV₁ FEF_{25-75%},
FEV₁/FVC IgE 가
ANOVA . *Der*
f ANOVA IgE 가

가 FEV₁ FEF_{25-75%} (p
 <0.05)(1, 2). FEV₁/FVC
 (4).
 IgE



1. *Dermatophagoides farinae* IgE
 FEV₁



2. *Dermatophagoides farinae* IgE
 FEF_{25-75%} .

4. IgE

	FEV ₁	FEF _{25-75%}	FEV ₁ /FVC
<i>Der p</i>	- 0.19	- 0.28	- 0.11
<i>Der f</i>	- 0.39*	- 0.38*	- 0.21
<i>Alternaria</i>	- 0.19	- 0.02	- 0.02
Cockroach	- 0.08	- 0.21	- 0.25

* p<0.05

가

6,9,17,18

Der p, Der f

18,23,24 Platts - Mills 25

Witte man 26 *Der p*

FEV₁

가

IgE

Der p, Der f

Alternaria,

가

IgE

FEV₁, FEV₁/FVC

27 가

FEV₁, FEV₁/FVC, FEF_{25-75%} 3

FEV₁ FEF_{25-75%}

IgE

Alternaria

가

가 17~41%

12.5%

^{1,28} *Alternaria* 가 10%
 가 ²⁴
 가 ,
 CAP 가 96%
 65%, *Alternaria* 57%
²⁹
 IgE *Der f* 가
 FEV₁ FEF_{25-75%}
 , 가
 가
 가 *Der f*
 가 *Der p*
³⁰ *Der f* 가
Der p ³¹ *Der*
p, Der f IgE ,
^{3,32,33} *Der f* IgE가
 , *Der p* IgE
 가
 FEF_{25-75%} *Der f* IgE
 Hamid ³⁴ 2mm
 가
 Lin ³ FEF_{25-75%}가 FEV₁ FEV₁/FVC
 IgE
 가
 10% , *Alternaria*

가

.

,

가

35

Alternaria

Kang

36

가

.

,

, *Alternaria*

IgE

가

.

CAP system FEIA
 , IgE
 .
 FEV₁, FEF_{25-75%}가
Der f
 FEF_{25-75%} 가

.
 가
 IgE
 FEV₁ FEF_{25-75%}
Der f IgE
 .
 , FEV₁
 .
 가

1.
2001;11:73 - 9.
2. , , , , , .
가 : 1990 - 1994.
1995;15:304 - 10.
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IgE

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Abstract

Correlation between Inhalant Allergen Specific IgE and Pulmonary Function in Children with Asthma

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There have been numerous reports on relationship between exposure to inhalant allergen and reduced pulmonary capacity in adult asthmatic patients, but little has been studied on the relationship between the inhaled allergen - specific IgE and pulmonary function in asthmatic children. This study plans to focus on four major inhaled allergen found in Korea, *Dermatophagoides pteronyssinus*, *Dermatophagoides farinae*, *Alternaria*, and Cockroach - specific IgE, and evaluate the pulmonary function in association with the amount of the aforementioned allergens. In 26 asthmatic patients and 33 normal children, the amount of specific IgEs for the 4 specified inhaled allergens were detected by employing CAP system FEIA, and the subjects' FEV₁/FVC, FEV₁, FEF_{25-75%} were evaluated through pulmonary function test. The results were compared for correlation. In the asthmatic patient group, FEV₁ and FEF_{25-75%} were reduced significantly ($p < 0.05$). The asthmatic group also exhibited significant reduction in FEV₁ ($r = -0.38$, $p < 0.05$) and FEF_{25-75%} ($r = -0.39$, $p < 0.05$) in association with the *Dermatophagoides farinae* - specific

allergen. In the comparison group, no significant correlation was detectable between the allergen - specific IgE and results of pulmonary function test.

In asthmatic patients, the level of *Dermatophagoides farinae* - specific IgE can be used as a significant index to suspect reduced pulmonary function.

Key Words : House dust mite, Asthma, Inhalant allergen, Pulmonary function test, Specific IgE