

A군 연구균 감염이후 Antistreptolysin-O 혈중 농도 증가가 뚜렷씨 장애의 증상악화에 미치는 영향에 대한 임상 연구*

TIC SYMPTOM EXACERBATION ASSOCIATED WITH STREPTOCOCCAL INFECTION IN TOURETTE'S DISORDER

정 유 숙**

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요 약 : A (GABHS) 가 가가
antistreptolysin - O A (GABHS)
14 . (1) 6 15
(2) DSM - 1 . (3)
가
가 (Yale Global Tic Severity Scale)
antistreptolysin - O (ASO titer) 가 (6
(8)
가 가
가 A (GABHS)
중심 단어 : A (GABHS)

서 론

10,000 4 5 1) 18

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1 8) 9)

가 3)

1) (comorbid) 10)11), 가¹²⁾, A (group 13-15)

A[] hemolytic streptococcus 3)

가 가

가 가

1880 Gilles de la 3)

Tourette 가 가

19 가 (MRI)

chorea 1940 가 (putamen), (globus pallidus) 16)

1960 haloperidol 2) 17-19)

3) A (group A[] hemolytic streptococcus : GABHS) 가 가 (rheumatic fever) Sydenham's chorea가 8

23% 4-6), 50 90%, - 가 Husby²⁰⁾ Sy - denham's chorea가

가 가 chorea 7) 가 21)22)

가 (epigenetic) 가 가 23)

가 24), GABHS 가

5. 자료 분석
 Mann - Whitney U - test χ^2
 p<0.05, p<0.01
 Pearson
 p<0.1,

결 과

1. 인구학적 변인
 Table
 1
 50% , 100%
 가 ($\chi^2=4.2, p=0.040$).
 (p=0.743)

2. 공존장애의 정도 비교
 가 (Table 2).
 (37.5%), 1 (16.7%)

Table 1. Demographic and clinical characteristics of subjects in groups with increasing level of ASO titer & normal level of ASO titer in Tourette's disorder

| | Group with n1 level N = 8 | Group with increasing level N = 6 | Group difference p value |
|-----------------|---------------------------------|---|--------------------------------|
| | Sum of ranks | Sum of ranks | |
| Age | 59.50 | 45.50 | 0.95 |
| Sex(M ; F) | 4/4 | 6/0 | 0.04* |
| Birth order(No) | | | |
| First | 5 | 1 | |
| Second | 1 | 3 | 0.14 |
| Only | 1 | 2 | |
| Age of onset | 63.50 | 41.50 | 0.65 |
| Duration | 57.50 | 47.50 | 0.74 |

* : p<0.05
 ASO : antistreptolysin-O
 Duration : Duration of illness

가 0 , 1
 (16.7%) , 4 (50%),
 2 (33.4%), 0 , 1 (16.7%),
 가 1 (12.5%), 1
 (16.7%)
 ($\chi^2=3.451, p=0.49$).

3. 틱 증상의 심각도의 비교
 가 (Yale Global Tic
 Severity Scale : YGTSS)
 , YGTSS
 (Table 3).

14.3 (: 57.5), 16.2 (: 47.5)
 8.6 (: 51.0),

Table 2. Comorbid disorders of subjects in groups with increasing level of ASO titer & normal level of ASO titer in Tourette's disorder

| | Group with n1 level N = 8(%) | Group with increasing level N = 6(%) | Group difference* p value |
|-----------------------------|------------------------------------|---|---------------------------------|
| Only TD | 3(37.5) | 1(16.7) | |
| TD & ADHD | 0 | 1(16.7) | |
| Anxiety Dis | 4(50) | 2(33.3) | 0.49 |
| Depressive Dis | 0 | 1(16.7) | |
| Anxiety & Depressive Dis | 1(12.5) | 1(16.7) | |

* : χ^2 -test
 TD : Tourette's Disorder Dis : Disorder
 ADHD : Attention Deficit/Hyperactivity Disorder
 ASO : antistreptolysin-O

Table 3. Comparison of severity of tic symptoms between group with normal level of ASO titer & group with increasing level of ASO titer

| | Group with n1 level N = 8 | Group with high level N = 6 | Group difference [†] p value |
|--------------------------|---------------------------------|-----------------------------------|---|
| | Sum of ranks | Sum of ranks | |
| Global severity score | 47.00 | 58.00 | 0.093* |
| Total tic score | 52.00 | 53.00 | 0.301 |
| Motor tic score | 57.50 | 47.50 | 0.746 |
| Phonic tic score | 51.00 | 54.00 | 0.242 |
| TSIR score | 43.50 | 61.50 | 0.026** |

* : p<0.1 ** : p<0.05
[†] : Mann-Whitney U test ASO : antistreptolysin-O
 TSIR score : Overall TS Impairment Rating score

Table 4. Correlations between clinical characteristics of subjects

| | Ab level | Age | Onset | Duration | MTS | PTS | TTS | TSIR | GS |
|----------|----------|--------|--------|----------|---------|---------|---------|---------|---------|
| Ab level | 1.00 | -0.185 | -0.370 | 0.19 | 0.03 | 0.157 | 0.117 | 0.372 | 0.276 |
| Age | -0.185 | 1.00 | 0.555* | 0.559* | 0.495 | 0.018 | 0.256 | 0.614* | 0.422 |
| Onset | -0.370 | 0.555* | 1.00 | -0.379 | 0.012 | 0.055 | 0.041 | 0.133 | 0.133 |
| Duration | 0.19 | 0.559* | -0.379 | 1.00 | 0.436 | 0.282 | 0.39 | 0.475* | 0.367 |
| MTS | 0.030 | 0.495 | 0.012 | 0.436 | 1.00 | 0.394 | 0.766** | 0.68** | 0.81** |
| PTS | 0.157 | 0.018 | 0.055 | 0.282 | 0.394 | 1.00 | 0.893** | 0.288 | 0.624* |
| TTS | 0.117 | 0.256 | 0.041 | 0.39 | 0.766** | 0.893** | 1.00 | 0.535* | 0.833** |
| TSIR | 0.372 | 0.614* | 0.133 | 0.475* | 0.68** | 0.288 | 0.535* | 1.00 | 0.871** |
| GS | 0.276 | 0.422 | 0.113 | 0.367 | 0.81** | 0.624* | 0.833** | 0.871** | 1.00 |

* : p<0.05

** : p<0.01

MTS : Motor Tic Score

PTS : Phonic Tic Score

Ab level : antistreptolysin-O titer

TTS : Total Tic Score

TSIR : Overall TS Impairment Rating score

GS : Global Severity score

12.7 (: 54.0) , 22.9 가
 (: 52.0), 28.8 (: 53.0)
 , ,
 . 16.3 (: 43.5),
 30.0 (: 61.5)(U=7.50, p=0.026), 가
 YGTSS 39.1 (: 47.0), 가
 62.8 (: 58.0) (U=11.00, p=
 0.093),

4. 인구학적, 임상변인간의 상관관계

29) /
 2)
 30)
 (Ta-
 ble 4).
 가 A (GABHS) 가 가
 고 찰
 A 6.1 7.4 . A
 (GABHS) 가 (GABHS)
 . 가 6.3
 (GABHS) 가 A 7 1)
 reprotolysin - O 가 antist - 가 29)

가 : 가 1 : 1 ²⁶⁾ .

가 . striatal ³³⁾ 가

가 3 5 : 1 ¹⁾ 가

(GABHS) A (GABHS) 가

가 Swedo ³¹⁾ 가 PANDAS (Pediatric Autoimmune Neuropsychiatric Disorders Associated With Streptococcal Infection) 가

가 83.3% 가

가 10,000 4 5 가 PANDAS 가

가 / 가 A (GABHS) 가 A (GA - 가 ASO antineuronal antibody, antistreptococcal DNase B

BHS) ³¹⁾ 가

가 A (GABHS) (GABHS) . A

가 가 가 가

가 A (GABHS) 가

가 PANDAS 가

가 ³²⁾ A (GABHS) 가

가 Swedo ²⁶⁾ 가 A (GABHS) 가

가 A (GABHS) 가 (rheumatic fever)

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**TIC SYMPTOM EXACERBATION ASSOCIATED WITH
STREPTOCOCCAL INFECTION IN TOURETTE'S DISORDER****Yoosook Joung, M.D.***Division of Child & Adolescent Psychiatry, Department of Psychiatry, Samsung Medical Center,
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Object : The purpose of this study was to investigate that infection with group A[] hemolytic streptococcus may associate the mechanisms that cause or exacerbate the tic symptoms in some cases of Tourette's disorder

Method : Fourteen cases with abrupt worsening of tics participated in this study : 10 males,4 females. The subjects were divided into two groups composing of the group with increasing level of ASO titer and the group with normal level of ASO titer. The subjects were administered Yale Global Tic Severity Scale(YGTSS).

Result : The global severity scores and overall TS impairment rating scores of YGTSS in the group with increasing level of ASO titer were more higher than in the group with normal level of ASO titer

Conclusion : These results suggest that increasing level of ASO titer, resulting from group A[] hemolytic streptococcal infection has affected worsening the tic symptoms in Tourette's disorder.

KEY WORDS : Streptococcal infection · Tourette's disorder · Tic symptoms.