

## 연령에 따른 만성 뇌경막하 혈종의 임상적 분석\*

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= Abstract =

## A Clinical Analysis of Chronic Subdural Hematoma according to Age Factor

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**O**bjectives : A 10 - year retrospective clinical study was undertaken to determine the differences between two groups according to age at presentation(group A, under 50 ; B, over 50).

**Methods :** We analyzed 468 cases with chronic subdural hematoma admitted to the department of neurosurgery in our hospital from January 1987 to December 1996. The patients were divided into two groups according to age at presentation(group A, under 50 ; B, over 50).

**Results :**

1) The number of group A was 126 cases(26.9%) and that of group B was 342 cases(73.1%), respectively. Males were more frequently involved than females in each group.

2) There noted a history of head trauma in 88.9% of group A and 92.4% of group B. Forty - nine patients(38.9%) of group A and 103 cases(30.1%) of group B revealed a history of alcoholism.

3) Group A patients presented with symptoms of increased intracranial pressure such as headache(75.%) , nausea and vomiting(68.0%). However, Group B patients had more frequent mental changes(84.0%)and focal neurological deficits such as hemiparesis(76.5%).

4) Onset of symptom and its duration was shorter in group A than group B.

5) Six patients among 441 cases(1.4%) treated with burr hole drainage and two patients of 27 cases(5.4%) with craniotomy died, and all of these were group B patients. The two cases among six patients with burr hole drainage developed huge intracerebral hemorrhage and brain stem hemorrhage, respectively.

**Conclusion :** In treating patients with chronic subdural hematoma, distinguishing between two age groups is quite helpful to determine treatment strategies.

**KEY WORDS :** Chronic subdural hematoma · Age factor · Burr hole drainage.

서 론

CT<sup>23)25)</sup> MRI<sup>11)</sup>

가 가

1997. 8. 24.

1997. 12. 12.

8)22)

대상 및 방법

1987 1 1996 12

10 468

50 50

386 52

가 30 50

A, 50 B 126, 342

. 468 445, 23

Tyson<sup>24)</sup>

McNemar test

SAS 6.12

**Table 1.** Age and sex distribution

Age/Sex	Male	Female	Total(%)
9	4	1	5(1.1)
10 - 19	8	0	8(1.7)
20 - 29	14	1	15(3.2)
30 - 39	32	2	36(7.7)
40 - 49	62	3	65(13.9)
50 - 59	127	25	152(32.5)
60 - 69	113	19	132(28.2)
70 - 79	32	14	46(9.8)
80	7	2	9(1.9)
Total	401(85.7)	67(14.3)	468(100.0)

**Table 2.** Etiology of chronic subdural hematoma

Etiology	Group A(%) (N = 126)	Group B(%) (N = 342)	Total(%) (N = 468)
Head trauma	73(57.9)	236(69.0)	309(66.0)
Alcoholism with head trauma Hx	39(31.0)	80(23.4)	119(25.5)
Alcoholism without head trauma Hx	10(7.9)	23(6.7)	33(7.1)
Shunt operation	2(1.6)	0(0.0)	2(0.4)
Anticoagulant therapy	1(0.8)	2(0.6)	3(0.6)
Unknown	1(0.8)	1(0.3)	2(0.4)

결 과

1. 연령 및 성별분포

50 40 49 가 65 (13.9%) 가

50 50 59 가 152 (32.5%),

60 69 가 132 (28.2%) (Table 1).

2. 원 인

가 A 88.9% B

92.4% 가 A 38.9% B 30.1%

(Table 2).

3. 증상 및 증후

A

95 (75%), 86 (68%)

B 가 287 (84.0%),

262 (76.5%) (Table 3. p<0.01).

4. 외상 후 증상발현의 기간

428 A 3

4, 4 5 가 47 (41.9%) 32 (28.6%)

**Table 3.** Symptom & sign

Symptom & sign/Age	Group A(%)	Group B(%)	Total(%)
Headache	95(75.0)	204(59.7)	299(63.9)
Vomiting	86(68.0)	72(21.1)	158(33.8)
Mental change	66(52.7)	287(84.0)	353(75.4)
Hemiparesis	50(39.5)	262(76.5)	312(66.7)
Seizure	8( 6.0)	63(18.4)	71(15.2)
Total(%)	126(100.0)	342(100.0)	468(100.0)

(p<0.01)

**Table 4.** Duration of clinical manifestation after head trauma

Time/Onset	Group A(%)	Group B(%)
<3 weeks	8(7.1)	12(3.8)
3 - 4 weeks	47(41.9)	43(13.6)
4 - 5 weeks	32(28.6)	55(17.4)
5 - 6 weeks	15(13.4)	77(24.4)
6 - 7 weeks	5(4.5)	69(21.7)
7 - 8 weeks	2(1.8)	41(13.0)
8 - 9 weeks	2(1.8)	11(3.5)
9 - 10 weeks	1(0.9)	4(1.3)
>10 weeks	0(0.0)	4(1.3)
Total	112(100.0)	316(100.0)

(p<0.05)

3 5 70% , B  
 5 6 6 7 가 77 (24.4%), 69  
 (21.7%) 5 7 55%  
 (Table 4, p<0.05).

5. 혈종의 위치

A 가 120 (95.2%),  
 가 6 (4.8%)  
 - 가 85 (67.5%) 가  
 2 (1.6%) . B  
 가 325 (95.0%), 가 17 (5.0%)  
 - 가 163 (47.7%) 가

6. 수술적 방법

A 122  
 (96.8%) , 4 (3.2%)  
 B 319 (93.2%) , 21 (6.6%)  
 ,  
 가 B 2 가  
 ,  
 ,  
 , A  
 , 2

Table 5. Postoperative brain expansion time

Time	Number of patients(%)	
	Group A(N = 126)	Group B(N = 342*)
<2 weeks	112(88.9)	204(59.7)
2 - 4 weeks	12(9.5)	113(33.0)
>4 weeks	2(1.6)	17(5.0)

\*8 cases in group B had nearly no brain expansion during 4 weeks of follow up

Table 6. Neurological grading system by Tyson<sup>24)</sup>

Grade 1	patient alert and oriented : spontaneous conversation and purposeful movement absent or only mild symptom or focal sign(headache and reflex asymmetry)
Grade 2	patient drowsy and disoriented : limited verbal and motor response or command moderate focal signs (hemiparesis)
Grade 3	patient not conversant : utters sounds and makes purposeful motor response to noxious stimuli : severe focal sign(hemiplegia) : include patient who are awake but demented
Grade 4	no vocalization : nonpurposeful, stereotyped, or absent motor response to noxious stimuli : abnormal vegetative function(abnormal respiratory pattern, anisocoria)

. B ,  
 11 , 10 , 2 .

7. 수술 후 뇌팽창시간

2 , 4 , 6 A (88.9%)  
 2 B 204 (59.7%)  
 2 , 113 (33.0%) 2 4 , 4  
 17 (5.0%) 8 4  
 (Table 5).

8. 나쁜 예후를 보인 환자의 특징

Tyson (Table 6) II  
 53 ,  
 15 38  
 B 342  
 31 (9.1%) A (5.6%)  
 ,  
 가  
 가 (Table 7, p<0.05).  
 441 B 6 (1.4%)가  
 1  
 4  
 2  
 ,  
 3  
 4 1

Table 7. Characteristics of unfavorable cases

Characteristics	Group A(N = 126)	Group B(N = 342)
Age	7/126(5.6%)	31/342(9.1%)
Multiplicity	Single 2/90(2.2%)	7/289(2.4%)
	Multiple 9/36(25.0%)	20/53(37.7%)
Laterality	Unilaterality 5/120(4.2%)	25/325(7.7%)
	Bilaterality 2/6(33.0%)	6/17(35.0%)

(p<0.05)

Table 8. Causes of death in group B according to burr hole drainage or craniotomy

Mode of operation	Causes of death	
Burr hole drainage	Huge intracerebral hemorrhage	1
	Brain stem hemorrhage	1
	Acute myocardial infarction	1
	Pneumonia	2
	Pulmonary embolism	1
Craniotomy	Pneumonia	1
	Sepsis	1

2  
(COPD)  
27 B 2 (7.4%)가  
(Table 8).  
고 찰  
가  
6)9)13), 14)17), 18)  
15)16) Hamilton 10)  
가  
17)  
5)6)  
27)  
50  
가  
가  
3)16)20)21)  
22)  
7 가 7 14  
1)9)  
가  
7)  
가 22% Markwalder 16) 10  
Richter 20) 40 84% 가  
2 3  
7)19)  
50 Markwalder 16) 20  
, 50 가 50  
가  
2)5) 50 4  
4) 20 70  
15),  
24), twist drill 13)16)26)

가 가 14)

가

14)17) 50 50

가

12), 16),

가

2

가

6 4

6 50 , 50

결 론

1987 1 1996 12

468

50 (A ) 50 (B )

1) 50 126 (26.9%) 50 342 (73.1%)

2) 50 88.9%가, 50 92.4%

38.9%, 50 30.1%

3) 50 (75.0%), (68.0%)

(84.5%), (76.5%)

4) 50 3 5 , 50

5 7

5) 441 6 (1.4%), B

27 2 (5.4%)가 6 2

• : 1999 8 19

• : 2000 2 10

• :

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