

초기상태가 불량한 자발성 뇌출혈 환자의 예후

- 70세 이상의 고령환자를 대상으로 -

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= Abstract =

The Prognosis of Spontaneous Intracerebral Hemorrhage in over the Seventies with Poor Initial Conditions

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Objective : The prognosis of spontaneous intracerebral hemorrhage often depends on initial neurologic condition, size and location of hemorrhage and associated intraventricular hemorrhage. However, age of patient, coagulation state and other associated vascular diseases may also play a role when present. In recent years, the geriatric population has been increasing. The age distribution of the patients with intracerebral hemorrhages also has been increased, accordingly. However, such patients, especially when associated with poor initial conditions often tend to be managed rather conservatively. The authors analyzed retrospectively on forty - five patients with spontaneous intracerebral hemorrhage over the seventies with poor initial condition to find out whether there exists a difference of outcome between surgery and non - surgery group.

Material and Method : A total of 45 patients over seventies with spontaneous intracerebral hemorrhage with Glasgow Coma Scale(GCS) 4 - 8 treated over last six years were included. The validity of surgical management for these patients as well as clinical variables which might have been operated on the outcome of these patients were evaluated. The Glasgow Outcome Scale(GOS) after three months was used for comparison of outcome.

Results : In surgical group(19 cases), mean age was 74.5 years old, mean hematoma volume 67.2ml and mean GCS score 5.7 points. In nonsurgical group(26 cases), mean age was 79.3 years old, mean hematoma volume 32.1ml, and mean GCS score 6.8 points. Mortality rate in surgical group was 47.4%(9 patients), including 2 cases of post - operative rebleeding, while that in nonsurgical group was 46.2%. However, when patients with initial GCS 4 - 6 points and over 30ml in hematoma volume were regrouped, mortality rate in surgical group was 46.2%, whereas mortality rate in nonsurgical group was 66.7%.

Conclusion : It is concluded that the mortality rate is much low in surgery group with initial GCS less than 6 points and hematoma volume over 30cc. There was no significant difference of outcome in patients with basal ganglia and thalamic hemorrhage. However, surgical treatment lowered the mortality and morbidity rate in patients with subcortical and cerebellar hemorrhage.

KEY WORDS : Spontaneous Intracerebral Hemorrhage · Surgery · Geriatrics.

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서 론

32.1ml, GCS 6.8
 (Table 1). 13, 1
 , 4, 1, 13
 , 8, 5, 0 (Table 2).
 47.4%(9), 46.2%(12)
 (Table 3). GCS GCS
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 35.0%(7/20) GCS가
 2)4)5)9)12) 가 가 4~6 50.0%
 가 가 (7/14), 63.6%(7/11) 가
 가 70, (Table 3).
 가 가 (Table 4),
 가 가 30ml
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 8
 70
 157 Glasgow coma scale(GCS) 4~8
 가 30ml 46.2%(6/13)
 , 66.7%(6/9)
 가

대상 및 연구방법

1992 3 2000 5
 70 157
 GCS가 4~8 45
 , GCS,
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 , (B) 가
 (C) slice)
 결 과

45 19 , 26
 , 74.5
 , 67.2ml, GCS 5.7
 , 79.3 ,

Table 1. Characteristics of patients according to treatment groups

| Feature | Surgical group | Conservative group |
|---------------------------|-----------------------------|--------------------|
| No. of cases | 19 | 26 |
| Sex(M : F) | 6 : 13 | 9 : 17 |
| Mean age | 74.5 | 79.3 |
| Hematoma volume | 67.2 ml | 32.1 ml |
| IVH* | 11 | 17 |
| Mean GCS** (GCS \geq 5) | 5.7 6 | 6.8 2 |
| Timing of surgery | 2.5 - 13 hr (mean : 5.3 hr) | |

IVH* : intraventricular hemorrhage
 GCS** : Glasgow Coma Scale

Table 2. Location of hematoma according to treatment groups

| Location | Surgical group | Conservative group |
|---------------|----------------|--------------------|
| Basal ganglia | 13 | 13 |
| Thalamus | 1 | 8 |
| Subcortical | 4 | 5 |
| Cerebellum | 1 | 0 |

Table 3. Mortality according to treatment groups in relation to GCS score and treatment

| GCS score | Surgical group | Conservative group |
|-----------|----------------|--------------------|
| 4 - 6 | 7(14) | 7(11) |
| 7 - 8 | 2(5) | 5(15) |

Table 4. Morbidity of survivors after hemorrhage relation to GCS and treatment

| GCS score | Surgical group | | Conservative group | |
|-----------|----------------|-------------|--------------------|-----------|
| | Independent* | Dependent** | Independent | Dependent |
| 4-6 | 1 | 6 | 0 | 3 |
| 7-8 | 1 | 2 | 6 | 4 |

Independent* : GOS 4-5
Dependent** : GOS 2-3

Table 5. Mortality and morbidity of patients with hematoma volume over 30 ml

| GCS score | Surgical group | | Conservative group | |
|-----------|----------------|---------------------|--------------------|------------------|
| | Mortality | Morbidity(I* : D**) | Mortality | Morbidity(I : D) |
| 4-6 | 6/13 | 1/13 : 6/13 | 6/9 | 0/9 : 3/9 |
| 7-8 | 2/4 | 0/4 : 2/4 | 1/3 | 1/3 : 1/3 |

I* : independent(GOS : 4-5)
D** : dependent(GOS : 2-3)

Table 6. Characteristics of patients who underwent operations

| | Age/Sex | GCS | GOS | Location* | Vol(ml) | Operation** |
|----|---------|-----|-----|-------------|---------|-------------|
| 1 | F/81 | 8 | 2 | BG | 52.3 | ST |
| 2 | M/75 | 5 | 1 | BG | 62.7 | O/C & H/R |
| 3 | F/80 | 6 | 2 | BG | 50.2 | O/C & H/R |
| 4 | M/70 | 6 | 3 | BG | 37.6 | O/C & H/R |
| 5 | F/78 | 7 | 4 | CBLL | 20.4 | CR & H/R |
| 6 | M/71 | 4 | 1 | BG | 87.9 | O/C & H/R |
| 7 | F/75 | 6 | 4 | Subcortical | 65.0 | O/C & H/R |
| 8 | F/70 | 6 | 2 | BG | 52.3 | O/C & H/R |
| 9 | F/71 | 6 | 3 | Subcortical | 75.3 | O/C & H/R |
| 10 | F/81 | 4 | 1 | Thalamus | 28.1 | ST |
| 11 | F/72 | 6 | 3 | BG | 33.5 | O/C & H/R |
| 12 | F/70 | 4 | 1 | BG | 41.8 | O/C & H/R |
| 13 | F/70 | 5 | 1 | BG | 35.1 | O/C & H/R |
| 14 | F/76 | 7 | 1 | BG | 58.8 | O/C & H/R |
| 15 | F/82 | 6 | 3 | BG | 137.3 | ST |
| 16 | M/71 | 7 | 1 | Subcortical | 125.5 | O/C & H/R |
| 17 | F/72 | 6 | 1 | Subcortical | 92.1 | O/C & H/R |
| 18 | M/70 | 5 | 1 | BG | 180.8 | ST |
| 19 | M/70 | 8 | 3 | BG | 39.2 | ST |

Location* : BG - basal ganglia, CBLL - cerebellum

Operation** : ST - stereotactic removal

O/C & H/R - osteoplastic craniotomy and hematoma removal

CR & H/R - craniectomy and hematoma removal

가 (Table 6).

고찰

10~15%

2-5)9)12)

60%

60ml

10%

90%

10)

GCS 3-5

20~30

가 GCS

가

13-15

GCS 6-12 7)

가

1)13)

가 30ml

2

GOS 4

70

가

4-6

30ml

GCS가

3cm

6)8)11)

가

가

가

가

5

가

가

가

가

GCS

가

가

결 론

70

가

가

30ml

GCS가 4 - 6

• : 2000 12 20

• : 2001 1 18

• :

136 - 701

5가 126 - 1

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