

측두엽내 공간 점유 병소와 동반된 난치성 간질의 수술적 치료 성적*

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= Abstract =

Surgical Outcome of Intractable Seizure with Space-Occupying Lesion in Temporal Lobe

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Objective : The increasing use of sensitive neuroimaging techniques has demonstrated that significant percentage of patients with intractable complex partial seizures have brain masses, especially in temporal lobe. The optimal surgical solution for these patients is still open to debate. The purpose of our investigation is to evaluate the surgical outcome of patient with lesion - related temporal lobe epilepsy with respect to the types of surgery and the location of lesion.

Patients and Methods : From DEC. 1993 to Dec. 1997, 35 patients with intractable epilepsy and space occupying temporal lobe lesion identified in preoperative MRI were included in this study. The types of surgery were lesionectomy, anterior temporal lobectomy with or without hippocampectomy. The location of lesion was divided as anteromedial group and lateral cortical group. The postoperative seizure outcomes according to the type of surgery and location of the lesion were compared.

Results : Twenty - six of 34 patients(76.5%) were seizure - free after surgery.

The Engel's class was favorable after anterior temporal lobectomy with or without hippocampectomy($p = .044$)

Conclusion : It is favorable to perform anterior temporal lobectomy for the treatment of intractable epilepsy with space - occupying lesion in temporal lobe. The resection of the hippocampus can be individualized.

KEY WORDS : Temporal lobe epilepsy · Anterior temporal lobectomy · Lesionectomy.

서 론

30~50%가

0.5~0.9%

1998

3

가

가 ,
 6).
 가 ,
 가
 9).
 “(lesion - related tem -
 poral lobe epilepsy : LTLE)
 11).
 16) ,

(epileptiform dis -
 charge : frequent sharp wave, slow wave)가
 75%
 Engel 's class 1
 (seizure free) , class 2,3,4 (not seizure
 free)
 ()
 . class 1 1
 1
 class 2
 , Class 3
 , class 4
 가
 가 75%
 가 25~75%

3. 수 술

대상 및 방법

1. 대 상

1993 12 1997 12
 173

(interictal EEG)

(ictal EEG)

8

2. 방 법

(temporal horn)
 (anteromedial group) (lateral cortical
 group) (collateral su -
 lculus) (amygdala)

(middle temporal gyrus), (superior temporal
 gyrus), (parahippoc -
 ampal gyrus)

가 가 , 가
 가 가 , 가
 가

(fusiform gyrus),
 (uncus)

(ECoG)

(te -

() ,

4. 통 계

square test Fischer test
 Engel 's class T - test Mann - Whitney

Chi -

결 과

1. 환자들의 임상적 특징

29.9

4 53 24.1
 20.7 (1~41) 50%
 가 20 . 2
 9.2 가
 가 19 , 16 ,
 19 , 16 .

2. 비침습적 뇌파 검사

33
 (ipsilateral focal or regional ep-
 ileptiform discharge) 22 66.76%
 . 4
 가 . 3

3. 수 술

(Lesionectomy) 가 12 ,
 가 22
 1 - (selective am-
 ygdalo - hippocampectomy)
 22 - 가
 15 , 가 1
 , 6

4. 병리 조직학적 결과

44.4% 16
 14 (87.5%)가
 (ganglioglioma) 5 31%
 . 10 (27.8%)
 , 1
 ,
 가 5 3
 가 1 가
 (Table 1).

5. 해마체 경화증 동반 여부(dual pathology)

23 가
 가
 16 . 5 (31.3%)
 가
 12 3
 (25.0%) 4 2
 (50.0%) .

6. 수술후 경련 조절의 성적

35 34 가 , class 1
 (seizure free) 가 26 (76.5%),
 가 8 . 가 class 1 class 2
 (Table 2).
 가 19 16 (84.29%) ,
 가 15 10 (66.7%)
 가
 가 (Table 3).
 15 12 (80.0%)
 , 19 12 (63.2%)

7. 수술 방법과 예후

Engel 's class

Table 1. Pathologic findings of 35 cases

| pathology | No. of case |
|------------------------------------|-------------|
| Tumor | 16 |
| ganglioglioma | 5 |
| gangliocytoma | 1 |
| astrocytoma | 4 |
| oligodendroglioma | 3 |
| pleomorphic xanthoastrocytoma | 1 |
| anaplastic astrocytoma | 1 |
| meningioma | 1 |
| Vascular lesion | 10 |
| cavernous hemangioma | 9 |
| AVM | 1 |
| Cortical migration disorder | 1 |
| Others | 8 |
| gliosis | 4 |
| calcification | 1 |
| cysticercosis | 2 |
| epidermal inclusion cyst | 1 |

Table 2. Over-all Engel's class of 34 patients(mean duration of follow-up 24.1 months)

| Engel's class | Number of patients | (%) |
|---------------|--------------------|--------|
| 1 | 26 | (76.5) |
| 2 | 8 | (23.5) |
| 3 | 0 | (0.0) |
| Total | 35 | 100 |

가
50% (Table 3).
2 ,
가

가 5
Engel 's class 2

Engel 's class 가

(gliosis)

1

12 7 (58.3%) ,
22 19 (86.4%)

Engel 's class 가
(T - test, p=.044),
가
(Fig. 1).

Table 3. Engel's class according to location of lesion and type of operation

| | Anteromedial lesion | | Lateral cortical lesion | |
|---------|---------------------|-----------|-------------------------|---------|
| | Lesionectomy | TL c/s AH | Lesionectomy | TL c AH |
| Class 1 | 2 [†] | 14 | 5 | 5 |
| Class 2 | | 3 | 5 | |
| Class 3 | | | | |

TL c/s AH, anterior temporal lobectomy with or without hippocampectomy

[†]One selective amygdalo-hippocampectomy was contained

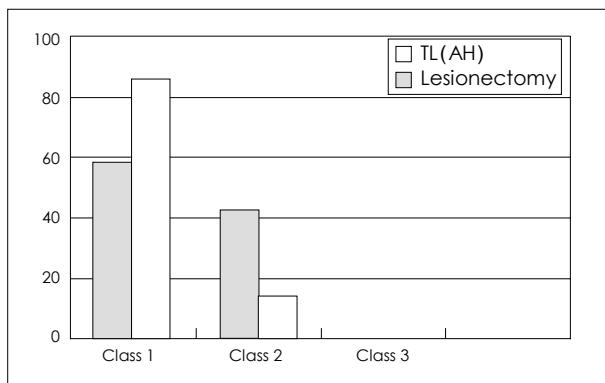


Fig. 1. Percentage of each Engel's class according to the type of operation TL(AH), anterior temporal lobectomy with or without hippocampectomy

고 찰

가 가
2)14)24)26)29), 25~40%

15~20%

25)27) , 20%

25)

7)8)15)28)29)

가

가 가 14)
가

14)29)

29)

가

29) 가
7)15)29)

eloquent area

65~80%

1)5)7)8)10)16-18)

가

23)

가

가

Cascino 7)

(volumetric stereotactic computer -

assisted resection)

, 30

26

23

57% 가 14 9 (secondary epileptogenesis) (se-12)13)23)

2 가 8)

40%가 78%

Goldring¹⁶⁾ Fried¹⁵⁾ () 80%

3) Yeh

27 7

28) Levesque²²⁾ 가

Kirkpatrick²¹⁾ 31 en bloc 가

25 (81%) (Cognitive function) 20)

가 가

Eliashiv¹²⁾ 가 가

(standard anterior temporal lobectomy) (sta-80%)

59% 가 , 가

가 가 가

8.4). 가

1995 Jooma¹⁹⁾ 가

30 가 가

(ECoG guided temporal lobe resection) - 가

50% 92.8%

결 론

가

1) 가 76.5%

86.4%

2)

3)

4)

5)

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