

## 후대뇌동맥류의 특성과 치료

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### Specific Characteristics and Management Strategies of Posterior Cerebral Artery Aneurysms

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#### ABSTRACT

**Objective :** This study was to define clinical characteristics and formulate the management strategies of the patients with posterior cerebral artery (PCA) aneurysms. **Patients and Method :** The authors reviewed the database and imaging studies as sources for identification and analysis. During the past 14 years, 16 consecutive patients with PCA aneurysms were treated either by surgery or neurointervention. **Results :** Ten patients had ruptured PCA aneurysms : 4 patients were Hunt and Hess Grade I, 1 Grade II, 4 Grade III, and 1 Grade IV. Six patients had unruptured PCA aneurysms : one patient was Grade 1, and the other patient was Grade IV due to ruptured multiple aneurysms. Seven aneurysms were small, 9 (56.2%) were large or giant. Thirteen aneurysms were saccular, 2 were fusiform, and 1 was serpentine. Seven of the 16 patients (43.7%) had multiple aneurysms. Pterional (8) or subtemporal (5) approach was done in 13 patients. The obliteration methods of the aneurysms were neck clipping in 10 patients, and trapping in 3 patients. Endovascular treatment was performed in 3 patients. Five patients showed transient oculomotor nerve palsy and contralateral hemiparesis after the surgery. Persisting oculomotor nerve palsy occurred in one patient. All patients showed favorable outcome (food recovery 14, moderate disability 2). **Conclusions :** As a result, PCA aneurysms were characterized by high frequency of non - saccular shape, large or giant size with mass effect, and multiple aneurysms. Surgical treatment was necessary for large or giant aneurysm of the distal PCA to decompress midbrain. Wrapping and clipping technique were useful for treatment of fusiform aneurysms. Although ultimate management outcome of the patients with PCA aneurysms were better than the patients with aneurysms of the other location, intra-aneurysmal treatment with Guglielmi detachable coil would be useful for the proximal PCA aneurysms to avoid surgical injury of the P1 perforator or the oculomotor nerve. (Kor J Cerebrovascular Disease 4:129-34, 2002)

**KEY WORDS :** Aneurysm · Posterior cerebral artery.

서론  
0.7 2.2%  
25)  
가  
: 2002 4 25  
: 2002 7 20  
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rhage),  
가 ,<sup>1)5)6)</sup>  
4)6)7)12)15)19)21 - 23)29)  
가 가 .  
(intramural hemor-  
tumor - like  
(endovascular treatment)  
(collateral circulation)  
13)20)30)  
가

**대상 및 방법**

1987 12 2001 7  
 1,730 16 ( )  
 13 , GDC packing 3 ) Aneurysm Data- 2 (saccular) 13 , (fusi-  
 base , form) 2 , (serpentine) 1 , 9 mm  
 , , , , , , 6 , 10 24 mm 7 , 25 mm 2 .  
 , , , , , , , 8 .  
 (Table 1).

**결 과**

16  
 1730 0.9% ,

**1. 근위부(Proximal) 후대뇌동맥류**

P2 - 3 P1 4 , P1 - 2 2  
 , P2 3 9 가 .  
 9 8 .

**Table 1.** Summary of 16 patients with PCA aneurysms

No.	Serial no.	Sex	Age	Location	Size	Shape	Presentation	Hunt & hess grade	Multiple aneurysm	Approach	Obliteration method	Outcome	Postop deficit
1	557	f	57	RP1	large	saccular	SAH	1	Lpcom	pterion.	clipping	good	tr.hemi
2	576	m	42	LP2-3	large	saccular	SAH	1	-	subtemp.	clipping	good	-
3	899	f	60	RP1	small	saccular	SAH	1	-	subtemp.	clipping	fair	hemi,tr.3N
4	969	m	65	LP2-3	small	saccular	SAH	3	-	subtemp.	clipping	good	-
5	1292	f	52	LP2	small	saccular	SAH	4	Rophthal mic	pterion.	clipping	good	tr.3N,hemi
6	1365	f	55	RP1-2	large	saccular	SAH	2	Acom,LC4, Babif	pterion.zy	clipping	good	tr.3N,hemi
7	1686	f	65	RP1	small	saccular	SAH	3	Acom, Lbasca	endovasc.	GDC	good	-
8	1808	f	68	LP3-4	small	saccular	SAH	3	-	endovasc.	GDC	fair	-
9	2033	f	34	LP2	small	fusiform	SAH	3	Rmca	pterion.	clipping (Bemsheet)	good	tr.3N,hemi
10	2223	m	11	RP3-4	large	saccular	ICH	1	-	endovasc.	GDC	good	-
11	1190	m	67	RP2-3	large	saccular	incidental	1 (Lpcom)	Lpcom, Acom	subtemp.	clipping	good	-
12	1203	f	18	LP2	giant, thrombosed	serpentine	MH	9	-	pterion.zy	trapping	good	tr.3N,hemi
13	1347	f	56	LP1-2	large	saccular	incidental	4(Rcho)	Rcho, Babif	pterion.	clipping	fair	incomp 3N
14	1420	m	36	LP3-4	giant, thrombosed	saccular	MH	9	-	subtemp.	trapping	good	-
15	1845	m	62	RP2-3	large, thrombosed	saccular	MH	9	-	subtemp.	trapping	good	-
16	2059	m	29	LP1	large	fusiform	MH	9	-	pterion.bi	incomplete trapping	good	tr.hemi

acom : anterior communicating  
 bi. : bilateral  
 f : female  
 ICH : intracerebral hemorrhage  
 mca : middle cerebral artery  
 pterion. : pterional  
 subtemp. : subtemporal

babif : basilar bifurcation  
 cho : anterior choroidal  
 GDC : Guglielmi detachable coil  
 L : left  
 MH : mural hemorrhage  
 R : right  
 tr. : transient

basca : basilar superior cerebellar artery  
 endovasc. : endovascular  
 hemi : hemiparesis  
 m : male  
 pcom : posterior communicating  
 SAH : subarachnoid hemorrhage  
 zy : zygomatic arch removal 3N : oculomotor palsy

7 (pterional approach) 7

2 (Case 6, 12)

가 (zygomatic arch)

1 (Case 3) (subtemporal approach) 고 찰

(neck clipping) 가 , 2 0.7% 2.2%,

1 (Case 16) P1 10%

1 (Case 9) Bem sheet <sup>8)26)</sup> 가 <sup>21)</sup> Thompson

sheet Bem 가 3 가 <sup>27)</sup> 가

1 (Case 12) (trapping) <sup>10)</sup>

8 7 가 가

가 , 6 <sup>6)</sup> 가 3

1 (Case 3) clip P1 perforator , 11 <sup>5)</sup> De Sousa

가 <sup>24)</sup> Amacher

8 5

clip 가

1 (Case 13) 가 <sup>1)</sup>

1 (Case 7) 가 80%가

GDC 6 (GI- <sup>7)21)</sup> (dissecting), (mycotic)

asgow outcome scale) 7 good recovery , Kitazawa 11

2 (Case 3, 13)가 moderate disability 4 (36%) <sup>12)</sup> Pia Fontana가 40

3 capsule , 13 8 (20%) <sup>21)</sup> Chang

moderate 13 6 (46%) <sup>4)</sup> Seoane

disability 15 2 <sup>23)</sup> Fuka-

disability가 9 1 machi Pia 10%, 가 10%

(Case 3) . Severe disability <sup>7)21)</sup>

가 9%

2. 원위부(Distal) 후대뇌동맥류 <sup>6)22)23)29)</sup>

26.7%

P2 - 3 4 P3 - 4 3

7 가 5 가 1.9% 5%

, 3 가 <sup>15)19)</sup>

2 (Case sis) . P1, P2 (anastomo-

14, 15) (perforator)

(congestive heart failure) <sup>20)</sup> P2

(Case 8) 10 (Case 10) 2 GDC 51%, 48%가

7 6 6 (lateral posterior choroidal artery)

good recovery , GDC (anterior choroidal artery) , P2 50%, P3

1 (Case 8) ( ) 46%가 (parieto - occipital ar-

moderate disability , tery) (posterior pericallosal artery)

<sup>30)</sup> 가 (cortical bra-

nch) (lepto-  
 meningeal anastomosis) <sup>13)</sup> , (subpial resection) (hippocampal gyrus)  
 , P1, P2 (end artery) , 가 가 <sup>12)</sup>  
<sup>12)</sup> (choroidal fissure)  
 Marinkovic 21 66 가 (suction)  
 36 69 (hippocampal gyrus) <sup>5)</sup>  
 , (interpeduncular <sup>5)</sup>  
 perforating branches) 2 , 1 10 가 ,  
 . 47.8%  
 , 30.3% 가 (collateral  
 branch) 가 (cerebral pe-  
 duncle), posterior perforated substance, (muscle wrapping)  
 (mammillary body) . Short inter - pedun- (endoaneurysmorrhaphy)  
 cular vessel long mesencephalic and diencephalic <sup>5)29)</sup>  
 vessel , 4/5 , Amacher 18 26  
 (interpeduncular fossa) 8 (occlusion)  
<sup>17)</sup> 5%  
 P1 P1 - 2 , <sup>1)</sup> Drake  
 (pterial) (subtemporal) (brisk bleeding)  
<sup>29)</sup> (temporo - polar) , (visual cortex) A2 M2  
 (extended pterional) , (zy- (5)  
 gomatic osteotomy) (skull base tech-  
 niques)가 <sup>11)12)</sup> P2 P3 <sup>2)</sup>  
<sup>29)</sup> Yasargil ,  
 P1, P1/P2 , P2, P3 <sup>2)</sup>  
 4 <sup>30)</sup> Seoane (thalamoperforating artery)  
 , S1 (thalamogeniculate artery)가  
 가 , S2 S1  
 (quadrigeminal cistern) <sup>2)</sup> P1  
 가 (collicular point) , S3 (posterior thalamoperforating artery)  
 collicular point (cerebellar ataxia),  
 S1 (pre- (rubral tremor)  
 temporal) , S2 , P2 (tha-  
 (subtemporal transventricular) lamogeniculate artery) thalamic syndrome of  
 , S3 (occipital Dejerine and Roussy(  
 interhemispheric) <sup>23)</sup> (hyperpathic pain)),  
 (incisura) <sup>30)</sup>  
 (petrous bone)  
 (slope) (tentorium) . Yarsagil P1 - P2  
 , (slack brain) 가 P1 <sup>29)</sup>  
 (lumbar drainage),  
 (controlled ventilation), mannitol  
 가 <sup>5)</sup> , 가 (cere-



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