

## 급성 하벽 심근경색에서 측부 유도의 ST분절의 특성과 병변 동맥의 관계

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### Relationship between ST Segment of the Lateral Leads and Culprit Arteries in Acute Inferior Myocardial Infarction

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#### ABSTRACT

**Background and Objectives** : Our purpose was to assess the characteristics of ST segment deviation in the lateral leads ( $aV_L$ , I,  $V_5$ ,  $V_6$ ) of patients with acute inferior myocardial infarction (AIMI) and elucidate any relationship with the culprit arteries. **Materials and Method** : The subjects were comprised 51 patients diagnosed as AIMI by standard electrocardiogram, cardiac enzymes and typical chest pain. The subjects were divided into two groups by angiographically proven culprit arteries : a left circumflex artery (LCx) group and a right coronary artery (RCA) group. We compared the frequencies of a ST segment depression more than 1 mm and less than 1 mm in  $aV_L$  and I, and a ST segment elevation more than 0.5 mm and less than 0.5 mm in  $V_5$  and  $V_6$  in each culprit artery group. **Results** : Among the 51 patients with AIMI, 42 were in the RCA group and 9 were in the LCx group. The frequency of a ST segment depression more than 1 mm in  $aV_L$  was 44% in the LCx group and 71% in the RCA group ( $p = 0.140$ ). 11% of the LCx group and 43% of the RCA group showed more than 1 mm ST segment depression in lead I ( $p = 0.128$ ). 56% of the LCx group showed more than 0.5 mm ST segment elevation in  $V_5$  and  $V_6$  and 81% of the RCA group showed less than 0.5 mm ST segment elevation in  $V_5$  and  $V_6$  ( $p = 0.036$ ). **Conclusion** : Culprit arteries in patients with AIMI and ST segment deviation in  $V_5$  and  $V_6$  are significantly related. ST segment elevation more than 0.5 mm in  $V_5$  and  $V_6$  was predominantly found in the LCx group, rather than the RCA group. Observation for ST segment deviation in the lateral precordial lead  $V_5$  and  $V_6$  would be important in predicting the culprit artery in AIMI. (Korean Circulation J 2001;31(10):982-987)

**KEY WORDS** : Myocardial infarction ; Coronary circulation ; Electrocardiography.

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## 서 론

## 심전도 판독

40 50% ST TP  
가 J point 0.08  
50% ,  
1)  
aV<sub>L</sub>, I ST 1 mm  
V<sub>5</sub> V<sub>6</sub> ST 0.5 mm  
가  
가 ST  
가 ST<sup>2-6)</sup>

## 관상동맥 조영술 판독

1)7)  
가  
12

## 분석 방법

ST , V<sub>1-2</sub>  
R , (aV<sub>L</sub>, I, V<sub>5</sub>, V<sub>6</sub>) ST  
가  
Chi square test Fisher's ex -  
act test 2 - tailed p value  
0.05

## 결 과

### 환자군의 비교 (Table 1)

대상 및 방법  
대 상  
1996 10 2000 6  
51 42 ± 8.7 ,  
9 ± 8.7  
50.7 ,  
56.6 가  
가 100%, 가  
83% 가  
93.4 ± 5.64%, 85.1 ±  
15.32% 가  
56%가  
2) (II, III, aV<sub>F</sub>) 1 38%가  
3) CK - MB 가 33%  
55%  
가  
7.4 ± 3.2 ,  
8.2 ± 6.1 가

**Table 1.** Characteristics of patients with acute inferior wall myocardial infarction

	Left circumflex artery (n=9)	Right coronary artery (n=42)	p
Age (years)*	50.7 ± 8.9	56.6 ± 8.9	0.77
Sex (male number of patients)	9 (100%)	35 (83%)	0.328
Degree of stenosis (%)*	93.4 ± 5.64	85.12 ± 15.32	0.117
Left anterior descending artery stenosis (number of patients) †	5 ( 56%)	16 (38%)	0.460
Thrombolysis (number of patients) †	3 ( 33%)	23 (55%)	0.291
Coronary angiography (days)*	7.4 ± 3.2	8.2 ± 6.1	0.716

\* : student t-test, † : fisher's exact test

**Table 2.** ST segment changes of 2 groups of patients with acute inferior wall myocardial infarction

	ST segment deviation	Left circumflex artery (n=9)	Right coronary artery (n=42)	p
AVL depression*	1 mm	4 (44)	30 (71)	0.140
	<1 mm	5 (56)	12 (29)	
I depression	1 mm	1 (11)	18 (43)	0.128
	<1 mm	8 (89)	24 (57)	
V <sub>5</sub> and V <sub>6</sub> elevation	0.5 mm	5 (56)	8 (19)	0.036 †
	<0.5 mm	4 (44)	34 (81)	

\* : number of patients (%), † : p<0.05 by Fisher's exact test

병변 동맥과 심전도 측부 유도 ST분절의 관계 (Table 2)

aV <sub>L</sub>	ST	1 mm	가						
	4 (44%),		30						
(71%)	(p=0.140).	I	ST		50%가 ST	1 mm	,	Q	
1 mm	가		1 (11%),						
	18 (43%)		(p=0.128).					23%	ST
V <sub>5</sub>	V <sub>6</sub>	ST	0.5 mm	가	, T	,	Q		
	5 (56%)		8						
(19%)	(p=0.036).							4)	Q
V <sub>5</sub>	V <sub>6</sub>	ST	0.5 mm					ST	
55.6%,	81.0%		38.5%,					4-6)8-11)	
89.4%								ST	

고 찰

가

가

(reciprocal change),  
(transmural infarction),

Blanke 4)

ST

가 가 ST V<sub>5</sub>  
1 가 가 V<sub>6</sub> ST ,  
<sup>12)(13)</sup> V<sub>1</sub> - V<sub>3</sub> ST  
Lew <sup>14)</sup> V<sub>1</sub> V<sub>4</sub> ST  
Hasdai <sup>9)</sup> aV<sub>L</sub> I ST  
Th - 가 , aV<sub>L</sub>  
I ST  
allium 201 가 V<sub>5</sub>  
Geft <sup>15)</sup> ST  
7% V<sub>1</sub> V<sub>5</sub> ST  
Bailey <sup>10)</sup> V<sub>1</sub> - V<sub>3</sub> ST  
2  
ST (V<sub>5,6</sub>, aV<sub>L</sub>) 1  
ST I ST  
Hiasa <sup>11)</sup> ST  
ST  
가 , ST  
, ST  
V<sub>2</sub> - V<sub>4</sub> ST  
<sup>16)</sup> I, aV<sub>L</sub> ST  
, V<sub>5,6</sub> ST , I ST  
Birnbaum <sup>8)</sup> V<sub>1</sub> R 가  
aV<sub>L</sub> ST 가 <sup>17)</sup> I,  
ST aV<sub>L</sub> 1 mm ST  
가 <sup>18)</sup>  
ST  
Huey <sup>5)</sup> ST ST  
V<sub>2</sub> - V<sub>4</sub>, aV<sub>L</sub> V<sub>1</sub> - V<sub>4</sub>  
가  
I, aV<sub>L</sub> ST  
I, aV<sub>L</sub> ST  
Berry <sup>6)</sup> ST  
ST 가  
가 ST  
가 , I aV<sub>L</sub> 가  
aV<sub>L</sub> ST 1 mm  
44%,

71% 가 0.5 mm  
(p=0.140).  
I ST 1 mm 가  
11%, 43%  
가  
(p=0.128).  
V<sub>5</sub> V<sub>6</sub> ST 0.5 mm  
가 56%,  
19% 가  
p 0.036  
V<sub>5</sub> V<sub>6</sub> ST  
가 V<sub>5</sub> V<sub>6</sub>  
가  
ST 0.5 mm  
V<sub>5</sub> V<sub>6</sub> ST 0.5 mm 가  
Berger<sup>1)</sup> Berry<sup>6)</sup> Hiasa<sup>11)</sup>  
ST  
가  
ST  
12)16) 가  
12 가

## 요 약

배경 및 목적 :

12 (aV<sub>L</sub>, I, V<sub>5</sub>,  
V<sub>6</sub>) ST

방 법 :

8

aV<sub>L</sub> I ST 1 mm  
V<sub>5</sub> V<sub>6</sub> ST

0.5 mm  
결 과 : 51 42  
9  
aV<sub>L</sub> ST 1 mm  
44%, 71%  
(p=0.140). I ST 1 mm  
11%  
43% (p=0.128). V<sub>5</sub> V<sub>6</sub>  
ST 0.5 mm  
56% 0.5 mm  
81% (p=0.036).  
결 론 :  
12  
V<sub>5</sub> V<sub>6</sub> ST  
가  
V<sub>5</sub> V<sub>6</sub> ST  
0.5 mm 가  
ST

중심 단어 :

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