

급성 심근경색 환자에서 심근파열의 임상양상

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Clinical Characteristics of the Patients with Myocardial Rupture after Acute Myocardial Infarction

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ABSTRACT

Background and Objectives : Myocardial ruptures, including : ventricular free wall rupture (VFWR) and ventricular septal rupture (VSR), after acute myocardial infarction (AMI), are fatal complications. Recently, ubiquitous use of echocardiographs, and other imaging techniques, allows us to diagnose these complications in the antemortem period. Thus, this study retrospectively evaluated the clinical characteristics of patients with myocardial ruptures following AMI. **Subjects and Methods :** 620 patients that had had AMIs, between January 1999 and June 2001, were analysed for the purpose of this study. Myocardial ruptures were diagnosed from their clinical symptoms, echocardiographs, and pericardiocentesis or cardiac catheterizations. The clinical characteristics of the patients with myocardial ruptures (n = 15) were compared to those patients with myocardial infarction, without rupture (n = 397), from their Q waves. **Results :** The patients with myocardial ruptures were older than those without (67 ± 9.7 years vs 60 ± 11.7 years, $p < 0.05$), and ruptures were more frequent in women (66.7% vs 25.2%, $p < 0.001$). The frequency of systemic hypertension, DM, and the distribution of infarction sites were similar in both groups. Also, clinical characteristics between patients with VFWR, and those with VSR, were similar. Of the patients with VFWR (n = 8), 7 suddenly died, and 1 was alive directly following surgery. Of the patients with VSR (n = 7), 4 died. **Conclusion :** Myocardial rupture is a fatal complication of AMI, which is more frequent in women, and the patients with ruptures, in our study, were older than those without. (**Korean Circulation J 2002;32(6):467-472**)

KEY WORDS : Myocardial infarction ; Rupture.

서 론

WR)
VSR)

(ventricular septal rupture ;

(ventricular free wall rupture ; VF-

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4 24% ,¹⁾ (new holo-systolic murmur)

¹⁾²⁾ 가 가 .

1 2% 가 0.2%

³⁾ 통계 처리 SPSS for window(version 9.0)

⁴⁾⁵⁾ ± t - test, chi - square test . p 0.05

가

결 과

대상환자들의 임상적 특성

620 (Q 412 , Q 208) 15 (2.4%) Q 8 , 7 (n = 15) Q (n = 397) Table 1

대 상 1999 1 2001 6 620 (Q) Q (67 ± 9.7 vs 60 ± 11.7 , p < 0.05)

412 , Q 208) 15 WHO 1) 가 , (66.7% vs 25.2%, p < 0.001)

(ischemic - type chest pain), 2) 가 . (40% vs 25.9%)

, 3) (20% vs 19.4%)

3가 2가 . ,

심근파열의 진단

(electromechanical dissociation ; EMD)가 (reperfusion) 10 (66.7%) , 5 Primary PCI

(pericardiocentesis) , 2 , 2 가 3

2 가 1 (pseudoaneurysm) (Table 2).

가 1 심근파열의 발생시기 5 11 (73%) 14 (93%) 12

Table 1. Clinical characteristics of Q-MI patients with or without rupture

	Without rupture (n=397)	With rupture		
		Total (n=15)	VFWR (n=8)	VSR (n=7)
Age (year)	60 ± 11.7	67 ± 9.7*	67 ± 12.2	67 ± 6.7
Women	100 (25.2%)	10 (66.7%) [†]	5 (62.5%)	5 (71.4%)
Hypertension	103 (25.9%)	6 (40%)	4 (50%)	2 (28.6%)
Diabetes	77 (19.4%)	3 (20%)	2 (25%)	1 (14.3%)
AMI site				
Anterior	199 (50.1%)	10 (66.7%)	5 (62.5%)	5 (71.4%)
Inferior	186 (46.9%)	5 (33.3%)	3 (37.5%)	2 (28.6%)
Lateral	12 (2.1%)			

Data presented are mean ± SD or number (%) of patients. * : p<0.05, † : p<0.001 versus patients without rupture. Q-MI : Q wave myocardial infarction, VFWR : ventricular free wall rupture, VSR : ventricular septal rupture, AMI : acute myocardial infarction

Table 2. Summary of clinical characteristics of patients with myocardial rupture

Case	Sex/Age	HTN	DM	EF (%)	MI site	Rupture	Day to rupture	Reperfusion	Treatment	Result
1	M/47	+	-	41	Ant.	VFWR	41	Urokinase	Surgical	Alive
2	F/69	-	+	46	Ant.	VSR	1	Urokinase	Medical	Dead
3	F/77	+	-	58	Ant.	VSR	1	D-PCI	Surgical	Dead
4	F/69	-	+	42	Ant.	VFWR	4	Urokinase	Medical	Dead
5	F/68	-	-	41	Inf.	VSR	2	D-PCI	Medical	Alive
6	F/74	-	-	NA	Inf.	VFWR	1	Not done	Medical	Dead
7	M/57	-	-	30	Ant.	VSR	10	Not done	Surgical	Alive
8	M/73	-	-	48	Ant.	VFWR	4	Urokinase	Medical	Dead
9	M/81	+	-	54	Inf.	VFWR	7	Not done	Medical	Dead
10	F/52	-	+	17	Inf.	VFWR	1	Not done	Medical	Dead
11	F/62	+	-	NA	Ant.	VFWR	<1	D-PCI	Medical	Dead
12	F/72	-	-	62	Inf.	VSR	11	D-PCI	Surgical	Alive
13	F/65	-	-	35	Ant.	VSR	2	Not done	Medical	Dead
14	M/61	+	-	20	Ant.	VSR	1	D-PCI	Surgical	Dead
15	F/77	+	-	NA	Ant.	VFWR	<1	Urokinase	Medical	Dead

HTN : hypertension, DM : diabetes mellitus, EF : ejection fraction, MI : myocardial infarction, Ant. : anterior, Inf. : inferior, VFWR : ventricular free wall rupture, VSR : ventricular septal rupture, NA : not available, D-PCI : direct percutaneous coronary intervention

가
40
2
1

(Table 2).

가
병원내 환자 경과
(n = 15) 8 1 40
6 3

가

4 2 7 2 1

1 (repair) (dehescence)

3 2 1 가

. Figueras ¹¹⁾

고 찰

4 24% ¹⁾

¹⁾²⁾ 8 (1.3%) ⁶⁾¹²⁾

가 67 ± 9.7 Q

가 60 ± 11.7 가 (p<0.05)

(underestimation) (66.7% vs 25.2%, p<0.001)

1 2%

0.2% ³⁾ 7 (1.1%) 가 ¹²⁻¹⁴⁾

. , Figueras ¹⁰⁾

, 가

, (paradoxical pulse)

⁶⁾⁷⁾ Figueras ⁸⁾

가

(sign)

가

가

¹⁾ 가 가 ¹¹⁾¹²⁾

(ec- ¹⁴⁾¹⁵⁾

hogenic mass) (wall defect)

⁹⁾¹⁰⁾

¹⁾

가

가 (thrombolytic treatment)

. Honan ¹⁶⁾

(delay in the mean time to thrombolytic treatment)가

17

²⁾ odds ratio 3.21

. rt - PA Becker ¹⁷⁾

가 . 가

가 가 45%,

가 18)가 , Pollak 19) 90% 3)22)

Ohishi 20) 가 7

. Primary PCI Moreno 21) 4 2 .

3 2

15 1

(urokinase) 5 12

Primary PCI 5

Primary PCI

5 가

가

2

3

요 약

배경 및 목적 :

(ventricular free wall rupture ; VF-
(ventricular septal rupture ;
Killip WR)
VSR)

class가 가 .

3 , 5 ,

2 , 2 가 .

방 법 :

1999 1 2001 6

620 (Q 412 , Q 208)

(15) Q

(397)

3 5

5 11 (73%) 14

(93%) 12

Figueras 2)

81 47

가 15

13

19 15

15 8

6 가

15 (8 ,
7) Q
(67±9.7 vs 60±11.7 , p<0.05)가
(66.7% vs 25.2%, p<0.001)가
(40% vs 25.9%) (20%
vs 19.4%)

5 11 (73%)

14 (93%) 12 . 2
(holosystolic murmur)

(8) 6 가
 2 1
 (7) 4 2 ,
 3 1 .

결 론 :

4%
 12
 3 (43%)

중심 단어 : ; .

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