

급성 심근 경색증 환자에서 발생한 혈역동학적으로 불안정한 심실부정맥에 대한 Amiodarone 정주 치료의 임상적 고찰

최유정 · 임상욱 · 박재완 · 황경화 · 안인섭 · 김준영
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Clinical Study of the Intravenous Amiodarone in Acute Myocardial Infarction with Life-Threatening Refractory Ventricular Tachyarrhythmias

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ABSTRACT

Background : Recently, the amiodarone has emerged as a promising antiarrhythmic agent and its efficacy and safety has been widely accepted with many literatures. But there was no general agreement regarding the dosage and indication of intravenous (IV) amiodarone in acute myocardial infarction with life-threatening refractory ventricular tachyarrhythmias. **Method :** From October 1995 through October 1997, we recruited retrospectively 9 patients of acute myocardial infarction who had received IV amiodarone for life-threatening refractory ventricular tachyarrhythmias and analyzed the initial response, adverse effect, and loading dose. **Results :** 1) Acute efficacy : Eight of 9 patients promptly restored normal sinus rhythm immediately after intravenous amiodarone administration. 2) In-Hospital Mortality : One patients died due to ventricular tachyarrhythmias refractory to aggressive management and 5 in 8 patients who had responded promptly with IV amiodarone discharged alive and other 3 patients died due to cardiogenic shock with normal sinus rhythm. 3) Immediate adverse effects : Five patients experienced immediate adverse effects after IV amiodarone ; 3 patients of hypotension, 1 patient of first degree AV block, and the other of Mobitz type 2 AV block. 4) Long term follow-up : Among 5 patients discharged alive, one died as unexpected consequence. Other 4 patients have been still alive without maintenance medication. **Conclusion :** The IV amiodarone for suppression of life-threatening ventricular tachyarrhythmias in patients with acute myocardial infarction seemed to be an effective second-line therapeutic drug and have acceptable adverse effects. In the future, the large scale study regarding the dosage and indication might be warranted. (Korean Circulation J 1998;28(8):1314-1321)

KEY WORDS : Intravenous amiodarone · Acute myocardial infarction · Ventricular tachyarrhythmias.

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서 론

연구대상 및 방법

amiodarone 가 대상환자 1995 10 1997 10 115 , 24

가 amiodarone 9 (7 , 2 , 58) . 9

가 . 7-8) 가 3 , 4 , 3

200 mg/dl 가

1 (Table 1). 9 1

가 30

가 CK,

ST T

가

amiodarone

가 aspirin, , nitrate

(doseranging heparin

study) 19-21)

48 22-25)

26-34)

Intra - Aortic Balloon Co -

unterpulsation . 3

Table 1. Baseline clinical characteristics of the study patients

Study patients	9
Age (mean years)	58 ± 18
Gender (M/F)	7/2
Risk factors	
smoking	3 (30%)
hypercholesterolemia (> 200 mg/dl)	1 (10%)
hypertension	4 (40%)
diabetes	3 (30%)

primary PTCA TIMI grade III (Table 2).

가 100 mmHg

rescue PTCA dopamine dobutamine

가 . Amiodarone

lidocaine 1 2 mg/kg

0.49±0.17(: 0.20 - 0.65, 2 mg/min .

0.40 ; 6 , <0.40 ; 2) (Table 2). 1 2 9

Amiodarone

/ 2 , 3

4 ,

Amiodarone의 정주방법과 용량

Amiodarone 150 mg 300 mg

130 5% dextrose 50 cc 10 15

250 , 30 ,

Table 2. Description of 9 patients with myocardial infarction with life threatening ventricular tachyarrhythmias

Case	Age / Sex	Infarction	Peak	EF	Ventricular arrhythmia			Prior	Cardioversion(N)
					Onset*	Morphology	N		
1	45/M	Inf	648	0.62	9hr	VF	3	Lido	3
2	77/M	Sep	1889	0.60	2hr20min	VT/VF	2	Lido	2
3	47/M	In f	11605	0.48	1hr40min	VT/VF	9	Lido	9
4	71/M	Ant-lat	3711	0.20	1hr30min	VT	10	Lido	2
5	36/M	Ant-sep	23530	0.61	1hr17min	VF	6	Lido	8
6	51/M	Ant-inf	8273	0.65	45min	VF	6	Lido	3
7	50/M	Subendo	40	`	3hr	VT	6	Lido	4
8	62/F	Inf	1183	0.44	6hr	VT	10	Lido	2
9	79/F	Inf	2142	0.30	40min	VF	3	Lido	2

*denotes the onset time after initial symptom develops. Inf ; Inferior, Sep ; septal, Ant-lat ; anterolateral, Ant-sep ; antero-septal, Ant-inf ; antero-inferior, Subendo ; subendocardial, CK ; creatinine kinase, EF ; ejection fraction, VF ; ventricular fibrillation, VT ; ventricular tachycardia, Lido ; lidocaine and N ; number

Table 3. Dose and response to treatment with intravenous amiodarone and long term outcome

Case	Initial bolus	Repeat bolus	Total bolus	Maintenance dose	Duration of maintenance	Acute efficacy	Outcome*	Long-term outcome	Side effect
1	300 mg	x2	600 mg	1200 mg	11/2 hr	no	F	.	.
2	150 mg	.	150 mg	600 mg	3 days	yes	S	F	1 AV block
3	150 mg	.	150 mg	600 mg	5 days	yes	S	S	.
4	300 mg	.	300 mg	800 mg	3 days	yes	F	.	hypotension
5	150 mg	x3	750 mg	600 mg	1 days	yes	S	S	.
6	150 mg	x2	300 mg	600 mg	2 days	yes	S	S	.
7	300 mg	.	300 mg	600 mg	.	yes	F	.	2 AV block
8	300 mg	.	300 mg	1000 mg	3 days	yes	F	.	hypotension
9	150 mg	.	150 mg	600 mg	3 days	yes	S	S	hypotension

Hypotension was defined as reduction of systolic blood pressure more than 40 mmHg from baseline promptly after amiodarone administration

*denotes in-hospital mortality. F ; die, S ; survive and AV ; atrioventricular

150 mg 가 1 2 생존환자수
 , 1 6 2 9
 , 300 mg 1 2 가 1 ,
 2 3 8
 150 mg, 4 300 mg, 2 600 mg 750 가 5 .
 mg, 600 mg 1
 1200 mg 3 , 5 20%
 . 400 800 mg (cardiac pumping failure) ,

(Table 3).

amiodarone

추적관찰

amiodarone

amiodarone

20

1 44%

1

2 4

심혈관 부작용

amiodarone

5

amiodarone

결 과

40 mmHg

3

amiodarone

, amio -

darone

초기치료효과

2

5 20

2

88.8%

, 150 mg

1

Morbitz

5 3

type II 2

2

amiodarone

1

2

추적조사

1

1

5

1

VVI

amiodarone 100

. 4

mg

. 4

300mg amiodarone

3

고 안

VVI

가

가

amiodarone

primary PTCA IABP

가

ocaine . am - amiodarone .
iodarone amiodarone 가
5 mg/kg, 10 mg/kg/24hr 가 , 30
TIMI III 가
amiodarone 가
가 가 IABP .
Amiodarone 가 , 10
가 . Scheinman ²⁰⁾ do - ,
seranging study 125 mg/24hr, 500 mg/ 30% .⁴⁵⁾
24hr, 1,000 mg/24h 3 가 3 , 가 amiodarone
amiodarone ,
가 . amiodarone
ami -
가 . odarone 2
iodarone 5 150 mg 3 am - 가
(cardioversion) 2 가
(A - V block) 2 amiodarone
150 mg 가
Pfisterer ⁴⁴⁾ BASIS 가
(EF>40%) amiodarone 가 ,
(EF<40%) 가 . (arrhythmic substrate) 가
8 가 amiodarone 가
가 3 가 , amiodarone
8 4 , 가
, 4 ,
가
, 연구배경 :
amiodarone
, .
amiodarone

방 법 :

1995 10 1997 10

24

9 (7 , 2 , 57.5)
amiodarone

가
결 과 :

1)

9 8 amiodarone
5 20
88.8%

2)

10 2
가 1
8
가 5 , 3

3)

Amiodarone 5 amiodarone
3 ,
1 1 , Morbitz type 2 2

4)

1 5 1
4

결 론 :

amiodarone
가
amiod -
arone
가

중심 단어 : amiodarone

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