

불안정형 협심증 환자에서 조기 관상동맥 중재술 후 예후 변화

조옥현¹ · 박정식¹ · 주신배² · 정진옥³ · 권현철³ · 박승우³ · 김준수³
 김덕경³ · 이상훈³ · 홍경표³ · 박정의³ · 서정돈³ · 이원로³

Change of Clinical Outcome in Patients with Unstable Angina according to Early Revascularization Therapeutic Strategy

Wook Hyun Cho, MD¹, Jeong Sik Park, MD¹, Shin Bae Joo, MD², Jin Ok Jeong³,
 Hyeon-Cheol Gwon, MD³, Seung Woo Park, MD³, June Soo Kim, MD³, Duk-Kyung Kim, MD³,
 Sang Hoon Lee, MD³, Kyung Pyo Hong, MD³, Jeong Euy Park, MD³,
 Jung Don Seo, MD³ and Won Ro Lee, MD³

¹Department of Internal Medicine, Seoul Adventist Hospital,

²Department of Internal Medicine, Hankook General Hospital, Kwangju,

³Division of Cardiology, Cardiovascular institute, Department of Medicine, Samsung Medical Center, College of Medicine, Sungkyunkwan University, Seoul, Korea

ABSTRACT

Background and Objectives : It has been well known that the Braunwald classification is an appropriate clinical parameter in the prediction of the outcome in patients with unstable angina. However, the ability of the classification to predict prognosis of unstable angina according to treatment strategy is not established. We evaluated the relation between severity of angina on admission and outcome of primary unstable angina with early invasive strategy. **Materials and Method** : 148 patients (M 85, F 63, age 61 ± 10) with suspected unstable angina were divided into three subgroups on the basis of the Braunwald classification on admission. The patients were followed up to 6 months prospectively if the final diagnosis was primary unstable angina. Early invasive strategy was used for the treatment of unstable angina. Major cardiac events were assessed during hospitalization and 6 months follow-up period according to the Braunwald classification. **Results** : Unstable angina was diagnosed in 95 patients (64%). Among these patients, 89 patients with primary unstable angina were followed up to 6 months. Clinical characteristics including number of patients, mean age, sex ratio, risk factors, coronary angiographic findings and revascularization rate during hospitalization were not different in three subgroups of these patients. Among these patients, early coronary revascularizations was performed in 67 patients (75%) and 2 (2%) deaths/myocardial infarctions occurred during hospitalization. During the follow-up period, 1 (1%) myocardial infarction/death and 12 (13%) revascularizations occurred. Cardiac event rate (death, myocardial infarction or revascularization) was not different during hospitalization and 6 months follow-up period among subgroups of severity class. **Conclusion** : Clinical outcome should be reevaluated after early coronary

: 1999 5 29
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 : , 130 - 092 2 29 - 1
 : (02) 2210 - 3508 · : (02) 3410 - 0403
 E - mail : cwh@unitel.co.kr

intervention to predict cardiac event in patients with unstable angina. (**Korean Circulation J 1999;29(11): 1188-1194**)

KEY WORDS : Unstable angina · Braunwald classification · Prognosis.

서론

가 89 (49 , 40 , 61 ± 10) (,) .

1) , 2) 3) , 1) 불안정형 협심증의 최종 진단 11)12) ST 13) 2 24 48 ST 2)4)5) Canadian Cardiovascular Society Classification(CCSC) 가 CCSC 가 - 1) 50% , 2) 가 7-10) Braunwald (severity) , , , 89 82 (92%) , 6 (7%) , 1 (1%)

재료 및 방법

관상동맥의 병변 조사

대 상 1997 1 1998 6 50% 8) 148 Braunwald , 가 가 (2 , 가 complexity 48 ; , /), (48 ; , (ACC/AHA) 14)) , A(; 입원 중 치료), B(; Braunwald¹³⁾), C(2 ; , 가) 6

70%
(44%), 13 (45%)
ACC/AHA
(reference dia-
(diameter stenosis)
(Table 2).
74%(22 / 7), 82%(12 / 2), 73%(21 / 3)

19 (51%), 7
(44%), 13 (45%)
ACC/AHA
(reference dia-
(diameter stenosis)
(Table 2).
입원 중 심장사건

통계 방법
SPSS for windows release 7.5
(SPSS Inc., Chicago, IL, U.S.A.)
(continuous data) \pm
(one way ANOVA) , (catego-
rical variable)
(crosstabulation analysis) (chi -
square)
p<0.05

1

Table 1. Clinical characteristics of 89 studied patients

	Class (n = 39)	Class (n = 17)	Class (n = 33)	P value
Age(years)	60.6 \pm 9.2	59.2 \pm 13.3	62.5 \pm 8.8	NS
Male gender	19(49)	7(41)	23(70)	NS
Hypertension	23(59)	10(59)	21(64)	NS
Diabetes	8(21)	5(29)	9(27)	NS
Hypercholesterolemia*	7(18)	2(12)	1(3)	NS
Smoking	10(26)	8(47)	15(45)	NS
Old myocardial infarction	8(21)	4(24)	10(30)	NS

*Hypercholesterolemia ; Total cholesterol > 240 mg/dL
NS : not significant
Data presented are number(%) of patients

추정 불안정형 협심증의 최종 진단
148
95 (64%) ,
15 (10%), Q 8
(5%), 30 (20%)
92 , 2 ,
1 . 89
6 가 .

Table 2. Coronary angiographic findings

	Class (n = 37)	Class (n = 16)	Class (n = 29)	P value
Number of diseased vessel				NS
1 vessel disease	18(49)	9(56)	16(55)	
2 vessel disease	10(27)	4(25)	9(31)	
3 vessel disease	9(24)	3(19)	4(14)	
Morphology of lesion				NS
Type A	7(18)	3(20)	11(38)	
Type B1	15(41)	5(30)	10(35)	
Type B2	13(36)	6(40)	5(17)	
Type C	2(5)	2(10)	3(10)	
TIMI flow				NS
0	2(5)	0(0)	0(0)	
1	2(5)	1(6)	1(3)	
2	0(0)	1(6)	2(7)	
3	20(90)	14(88)	26(90)	
Reference diameter(mm)	2.9 \pm 0.6	3.0 \pm 0.7	3.0 \pm 0.6	NS
Diameter stenosis(%)	78 \pm 10	72 \pm 11	73 \pm 13	NS

일차성 불안정형 협심증 환자의 기초 임상 특징
(39), (17), (33)
(Table 1).

관상동맥 조영술에서 병변의 특징
82
18 (49%), 9 (56%), 16 (55%)

Table 3. Major cardiac event during 6-month follow-up period and clinical variables

Variable	Major cardiac event Yes(n= 13)	No(n= 76)	p value
Age 60	4(31)	49 (64)	0.02
Male gender	9(69)	40(53)	NS
Hypertension	7(54)	47 (62)	NS
DM	3(23)	19(25)	NS
Hypercholesterolemia	1 (8)	9 (12)	NS
Smoking	6(46)	27(36)	NS
Old myocardial infarction	3(23)	19(25)	NS
Multivessel disease	5(39)	34(49)	NS

Table 4. Major cardiac events and revascularization during 6-month follow-up period according to Braunwald classification

Braunwald classification	Number	AMI	Death	PTCA	CABG
	39	0(0)	0(0)	3(8)	0(0)
	17	1(6)	1(6)	1(6)	1(6)
	33	0(0)	0(0)	5(15)	2(6)

AMI : acute myocardial infarction, PTCA ; percutaneous transluminal coronary angioplasty, CABG ; coronary artery bypass graft

6개월 추적 기간 동안의 심장사건과 환자의 임상적 특징

6
($p < 0.05$, Table 3).

입원 중 혈관재개에 따른 6개월 추적 기간의 심장사건

2.1 ± 1
/ , ,
22 /7 , 12 /2 , 21 /3
.
61% 39%,
45%, 45%,
(rotablator coronary athrectomy)

10%, 45%
45%, (rotablator coronary athr -
ectomy) 5%, 5%
.
49%, 57%, 45%
67 (75%) 22 (25%)
6 (
12 1

추적6개월 동안의 협심통의 중증도와 심장사건

6 13 (15%)
1 (1%), 1 (1%),
9 (10%),
3 (3%)
(Table 4).

고찰

가 .

, , 15 - 17)

1 7% 21%가

, 1 2% 18%

7)18 - 20)

, , ,

Braunwald

Rizik²¹⁾ 가

, 20

가 ,

, 가

.

(transmural)

(ST)

Braunwald , , 가 , ,
가 ST 가 ,
64% ,
417 가 68%가
³⁾ 가 75% Owa¹⁰⁾
(ergonovine) , 가
10% , 가
²²⁾ , van Miltenburg - van Zijl³⁾ 6
, , , 6
ST 48 , TIMI IIIB ²⁶⁾
⁴⁾가 24
¹⁾⁴⁾ , , ,
, , ¹⁾⁴⁾
6 (, 6 가
) ,
²⁾³⁾⁷⁾ , ¹⁾³⁾ , ²⁾³⁾ , ¹⁾⁷⁾
¹⁾²⁾ , ²³⁾ 가
24 . van Miltenburg - van Zijl³⁾
²⁾ , ²⁾ 49%, 35%
¹⁾ , ²⁾ , ¹⁾ , ¹⁾²⁾ 가
²⁴⁾ 6
, , , 6
6 , 6
, 6
. Bra - Bra -
unwald가 unwald 6
35% 43% van
Miltenburg - van Zijl³⁾ Clavin²⁵⁾ Braunwald

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