

대동맥 박리 54예의 임상 경과 및 장기 추적 결과*

배장호 · 김기식 · 한창엽 · 현대우 · 신이철 · 박소영 · 김윤년 · 김권배

= Abstract =

Clinical Features and Long-Term Follow-up Results in Fifty Four Patients with Aortic Dissection

Jang-Ho Bae, M.D., Kee-Sik Kim, M.D., Chang-Yeob Han, M.D.,
Yi-Chul Synn, M.D., So-Young Park, M.D., Dae-Woo Hyun, M.D.,
Yoon-Nyun Kim, M.D., Kwon-Bae Kim, M.D.

Department of Internal Medicine, School of Medicine, Keimyung University,
Dong-San Medical Center, Taegu, Korea

Background : Aortic dissection is an uncommon disease but early mortality is as high as 1 percent per hour if untreated. However, major advances in the prompt noninvasive diagnosis and in the medical and surgical treatment of aortic dissection now improve the survival rate to an 75 – 82% of 5-year survival rate. In order to determine clinical features and long-term follow up results of patients with aortic dissection in Korea, we present a retrospective review of 54 patients with aortic dissection at our institute.

Methods : We review the medical records, echocardiograms and computed tomogram(CT) or magnetic resonance imaging(MRI) of 54 patients(mean age : 59 ± 12 years, male : 27) who had aortic dissection between September 1991 and July 1997. Patients were classified according to DeBakey type. Clinical features were evaluated in relation to type. Long-term survival rate using Kaplan-Meier method were also evaluated in relation to type, sex and presence of undertaking operation.

Results : Of the 54 patients with aortic dissection, twenty two(41%) were classified to type I, eight(15%) to type II and twenty four(44%) to type III. Age(type I : 60 yrs, type II : 60 yrs, type III : 57 yrs), sex(male in type I : 10(45%), type II : 4(50%), type III : 13(54%)) and pulse rate(type I : 84, type II : 75, type III : 78) according to the type of aortic dissection show no significant difference. In regarding to predisposing factors, hypertension was found in 40(74%) overall, Marfan syndrome 1(2%), bicuspid aortic valve 4(7%), and iatrogenic vascular injury 3(6%). Four-year survival rate was 48% in all patients who were followed for 28 ± 26 months(1 - 168 months), 61% in type I, 44% in type II and 44% in the type III. But, there are no statistically significant difference in 4-year survival rate according to type and sex or presence of undertaking operation(data not shown). There are many kinds of cause of death ; multi-organ failure, renal failure, congestive heart failure, sepsis, ruptured aortic dissection, gastrointestinal

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bleeding, cerebrovascular disease and postoperative weaning failure in the dead patients from aortic dissection. And also we found that there are some kinds of cause of death not directly related with aortic dissection(sepsis, gastrointestinal bleeding and cerebrovascular disease) in patients, especially in type .

Conclusion : Overall four-year survival rate in patients with aortic dissection was 48% and there were no significant differences in survival rate accoring to type, sex and presence of under-taking operation. There were many kinds of cause of death in patients with aortic dissection and some causes of death was not directly related with aortic dissection. The survival rate in patients with aortic dissection will be increased by strict control of blood pressure and optimal timing of operation before development of aortic rupture.

KEY WORDS : Aortic dissection · Survival rate.

서 론

가 1991 9

1997 7

54

1). 가 , , .

대상 및 방법

1).

1. 대 상

48 1% 1991 9 1997 7

2).

54 (Table 1).

3). 59 ± 12 , 가 27 , 15

1950 1960
24 35%
, 48 50%, 2 80%
4,5).

90% 가 가 가

가 5
75% 82% 6,7).
8,9)

가
가

Table 1. Clinical characteristics of patients with aor-tic dissection

	Type 1	Type 2	Type 3	Total
Number(%)	22(41)	8(15)	24(44)	54(100)
Age(mean ± SD)	60 ± 14	60 ± 10	57 ± 10	59 ± 12
Sex(M : F)	10 : 12	4 : 4	13 : 11	27 : 27
PR(BPM)	84 ± 19	75 ± 18	78 ± 11	80 ± 16
AR*(%)	15(68)	4(50)	5(21)	24(44)

PR : pulse rate, AR : aortic regurgitation, * : p = 0.005

2. 방 법

1) 임상 양상

(false lumen)

(Fig.

2, 3).

DeBakey

Type

Type

Type

2) 생존율 분석 및 통계 처리

Kaplan - Meier

, DeBakey

4

(Fig. 1),

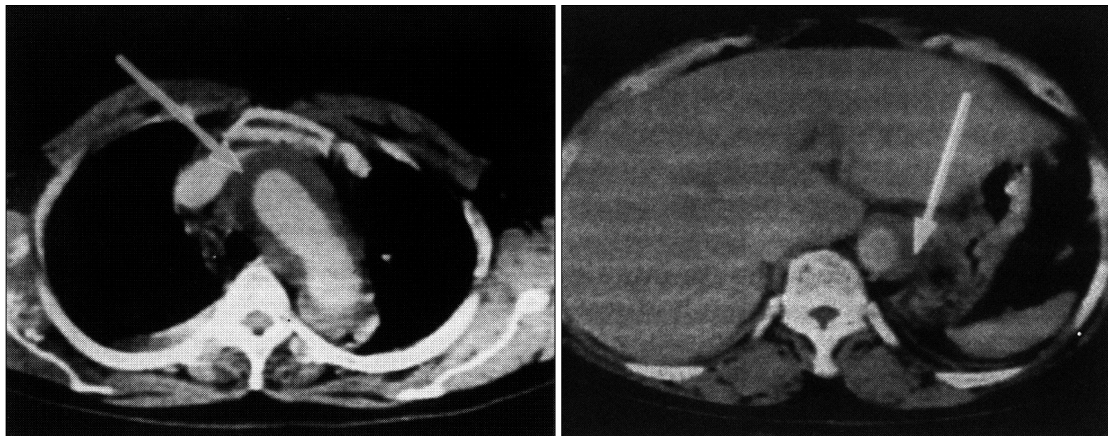


Fig. 1. Contrast enhanced computed tomography shows type A aortic dissection, arrow(false lumen).

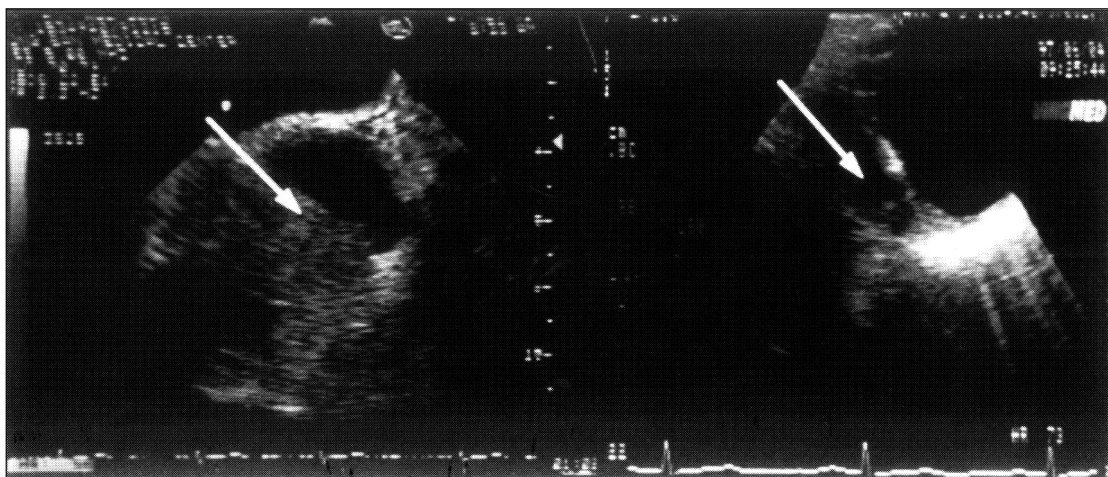


Fig. 2. Transesophageal echocardiography at the level of ascending aorta in patient with type A aortic dissection shows small true lumen and large false lumen filled with thrombi(left arrow) and decreased false lumen with the thrombi resolved(right arrow) in 6 years.

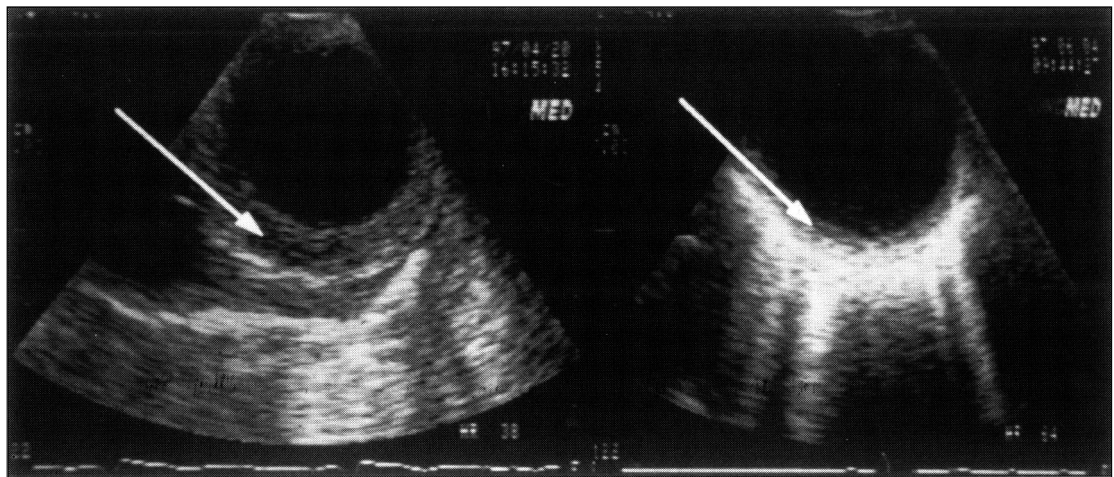


Fig. 3. Transesophageal echocardiography at the level of abdominal aorta in patients with type aortic dissection shows intramural hematoma(left arrow) and much resolved intramural hematoma(right arrow) in 1.5 months.

4
2
2
windows SPSS
(statistical package for social science)
paired t - test one - way ANOVA
test P 0.05

결 과

1. 임상 특성
54 Type 22 (41%), Type
가 8 (15%), Type 가 24 (44%)
, Type 60 , Type 가 60 ,
Type 가 57
Type 10 , Type 4 , Type
13 , Type
84±19 / , Type 75±18 / , Type
78±11 /
24 (44%)
Type 15 (68%), Type
4 (50%), Type 5 (21%)

Table 2. Predisposing factors according to type of aortic dissection

	Type 1	Type 2	Type 3	Total
Hypertension	17(77)	5(63)	18(75)	40(74)
Bicuspid AV	3(14)		1(4)	4(7)
Marfan syndrome		1(13)		1(2)
CV surgery	2(9)			2(4)
Intraarterial Cath.			1(4)	1(2)

AV : aortic valve, CV surgery : cardiovascular surgery, Cath : catheterization

(Table 1).

Type
17 (77%), 3 (14%),
2 (9%)가 , Type
5 (64%), Marfan 1
(13%)가 , Type 18
(75%), 1 (4%),
가 1 (4%)가
40 (74%), 가 8 (15%)

(Table 2).

54 15 (28%)
Type 4 (57%),
2 (29%),
1 (14%)가 , Type
1
, Type 7

2. 생존율 및 사인 분석

54
Type
33 ± 21, Type
,
Type
44% (Table 4).

28 ± 26
22 ± 22, Type
33 ± 30
4
48%
61%, Type
44%,
(Table 4).

16 ± 16, Type
7 ± 9, Type
21 ± 14 (Table 4).

(Fig. 4).

(Fig. 5)

Table 3. Operation number and indication according to type of aortic dissection

	Operation number(%)	Impending rupture	Major branch involvement	Sever AR
Type 1	7(32)	4(57)	2(29)	1(14)
Type 2	1(13)			1(100)
Type 3	7(29)	7(100)		
Total	15(28)	11(73)	2(13)	2(13)

AR : aortic regurgitation

Table 4. Survival rate according to type of aortic dissection

	Type 1	Type 2	Type 3	Total
4YSR(%)	61	44	44	48
FU Duration(Mo.) in dead	7 ± 9	28 ± 28	21 ± 14	16 ± 16
FU Duration(Mo.)	22 ± 22	33 ± 21	33 ± 30	28 ± 26

YSR : year survival rate, FU : follow up

YSR : year survival rate, FU : follow up

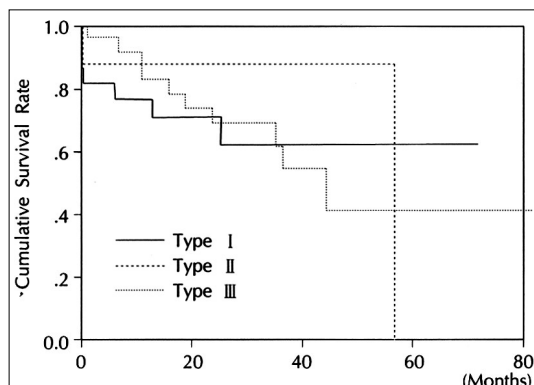


Fig. 4. Kaplan-meier survival curve in patients with aortic dissection according to type of aortic dissection.

(Fig. 6)

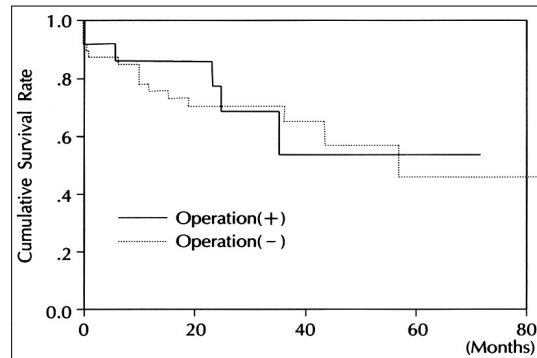


Fig. 5. Kaplan-meier survival curve in patients with aortic dissection according to taking operation.

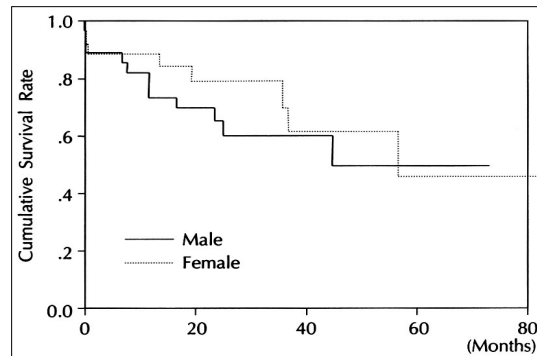


Fig. 6. Kaplan-meier survival curve in patients with aortic dissection according to sex.

Table 5. Causes of death according to type of aortic dissection

	Type 1	Type 2	Type 3	Total
MOF	2	1	1	4
Renal failure			2	2
Cardiac arrest	1			1
CHF	1			1
Sepsis			1	1
Rupture			1	1
Bleeding	1			1
GI bleeding			1	1
Weaning failure	1			1
CVA			2	1
Unknown	1	1	2	1
Total	7	2	10	19

MOF : multiple organ failure, Rupture : rupture of dissecting aortic aneurysm, CVA : cerebrovascular accident, GI bleeding : gastrointestinal bleeding

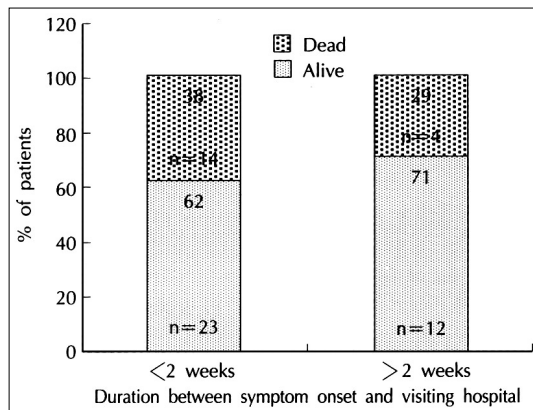


Fig. 7. Survival rate according to duration between symptom onset and visiting hospital.

가 Type 1/2 2/3
가
4 가
(Table 5).
37 23 (62%)
17
12 (71%)
(Fig. 7).

고 안
가
10,11) Type
Type 1
2
12)
90%
13)
50 60 가
2
80%
10,11,13) Type
Type
90%
4,10) 가 80

Marfan, Turner, Marfan
6 9%
7 14%
10)
74%
Marfan 2%,
7%, 6%
가 59
가

1/2 2/3
가
4 가
6)
Type
68%, 50%
21%
Type
Type

1995
Fann 14)
5 55%,
5 48%,
5 65%,
5 59%
4
DeBakey Type 61%, Type
44%, Type 48% Fann 14)
4
가
가
Doroghazi 6)

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