

우회로를 가진 환자에서 고주파 전극도자절제가 성공한 심내심전도의 특징

김 윤 년 · 박 재 호

Characteristics of Intracardiac Electrogram at Successful Sites of Radiofrequency Catheter Ablation in Patients with Accessory Pathways

Yoon Nyun Kim, MD and Jae Ho Park, MD

Department of Internal Medicine and Institute for Medical Science, Keimyung University,
School of Medicine, Taegu, Korea

ABSTRACT

Background : Radiofrequency catheter ablation was introduced the curative method of supraventricular tachycardia in patients with accessory pathways. The success of catheter ablation depends on the accurate localization of accessory pathway and the destruction of accessory pathways. **Method :** We analyzed the local electrograms in 35 patients to be underwent the successful catheter ablation and measured the catheter stability, A/V ratio, AV interval, Accessory pathway potential, and the interval from the onset of RF energy to loss of accessory pathway from local electrograms at the successful ablation sites. **Results :** The ratio of A wave and V wave range from 0.06 to 6.33 and the mean of A/V ratio is 0.62. The shortest AoVo interval is 20 msec and the longest AoVo interval is 120 msec and the mean of AoVo interval is 58.23 msec. The shortest ApVp interval is 20 msec and the longest ApVp interval is 100 msec and the mean of this interval is 51.88 msec. The incidence of accessory pathway potential among 35 successful ablation sites in 25%. The mean of time from RF energy to loss of accessory pathway is 4.48 sec. **Conclusion :** We concluded that the finding of local electrogram during catheter ablation is very important for shortening of procedure time and the successful procedure. (Korean Circulation J 1998;28(6):947-952)

KEY WORDS : Catheter · Ablation.

서 론

가

1980

direct current

: 1996 5 2

: 1998 6 25

: , 700 - 310

194

: (053) 250 - 7432 · : (053) 250 - 7434

E - mail : ynkim@dsmc.or.kr

가

Wolff - Parkinson - White(WPW) QRS
 가 A V 가 A V 가 100
 mm/sec 가 45°
 A V
 AoVo ApVp AoVo A
 ApVp
 A V
 radionics RF - 3C
 4 mm 6F 7F
 EPT Webster 40
 60 V 30

대상 및 방법

결과

WPW 가 35
 가
 ().
 4 3 1 cm
 , His ,
 1 cm
 6F 4 2 mm 10
 mapping
 PPG Midas 2500 recorder 100
 200 mm/sec
 (A) (V) , A V ,
 (K)
 5 3
 AV 가 10%

Table 1. Subject

Total patients	35
Sex	
Male : Female	25 : 10
Age(yrs)	37 ± 12 (20 - 64)
Disease	All WPW
Location of accessory pathways	
Left sided	
Anterior	1
Anterolateral	2
Lateral	15
Posterolateral	3
Posterior	5
*double bypass tract : 2 cases	
Right sided	
Anterior & lateral	4
Mid-septal	3
Posteroseptal	4

Table 2. Characteristic of local electrogram at the successful sites of RF ablation

Parameter	Range	Mean
A wave / V wave ratio	0.06 - 6.63	0.62 ± 1.16
AoVo time (msec)	20 - 120	51.56 ± 23.00
ApVp time (msec)	20 - 100	51.88 ± 18.22
Time from RF to loss of delta (sec)	0.6 - 14	4.48 ± 3.81

AoVo time : from the onset of A wave to onset of V wave, ApVp time : from the peak of A wave to peak of V wave

37 ± 12 (20 64) . 1 , 20 ,
 11 26 , 5 (Table 1).
 가 2 2 가 A V
 4 (A : V ratio) 0.06 6.63
 , 3 , 4 0.62 ± 1.16 0.5

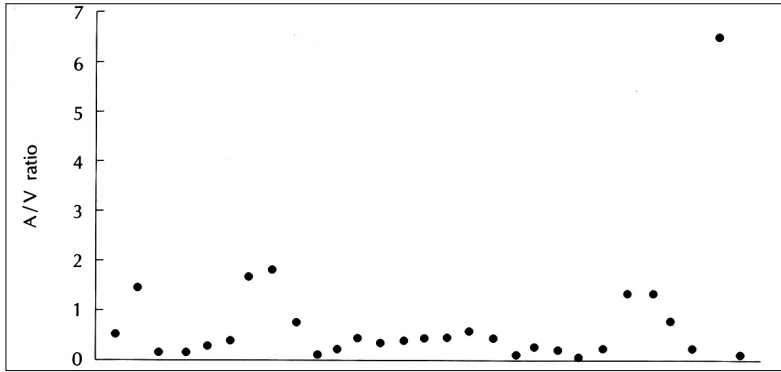


Fig. 1. Distribution of AV ratio at successful the ablation site.

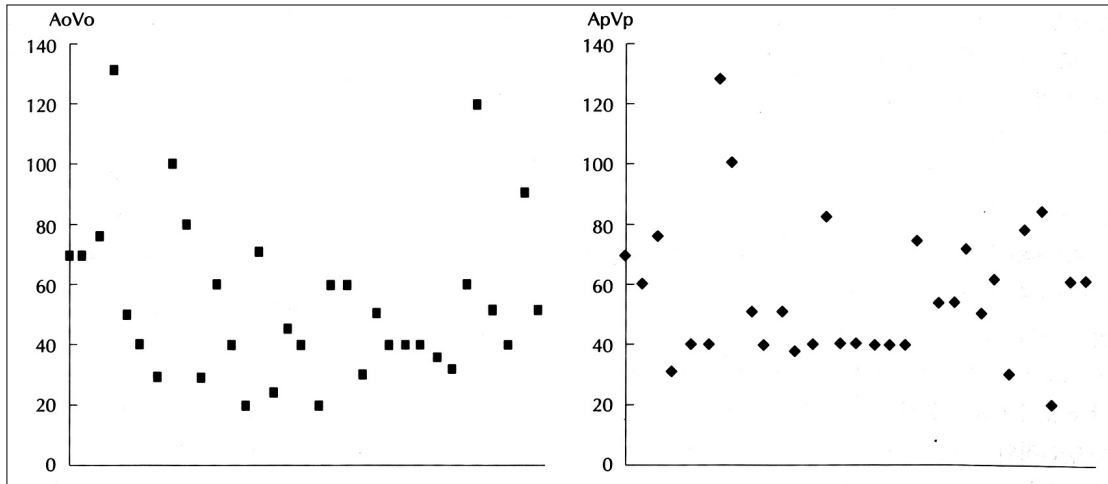


Fig. 2. Distribution of AoVo and ApVp interval at the successful ablation site.

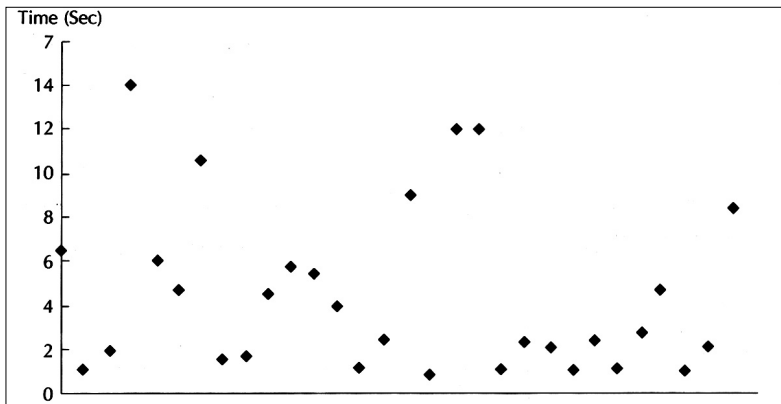


Fig. 3. Distribution of time from RF onset to loss of delta at the successful site.

Table 3. Frequency of K potential and stability at the successful ablation sites

Parameter	No/Total patients (%)
K potential	9/35 (25.71%)
Stability	35/35 (100.00%)

(Table 2, Fig. 1).

가 (A
V) AoVo 51.56 ±
23.00 msec 가 20
msec 가 120 msec , ApVp
51.88 ± 18.22 msec 가
20 msec 가 100 msec

(Table 2, Fig. 2).

4.48 ± 3.81 가
0.6 가 14
5 (Table 2, Fig. 3).
(Kent) 35 9 (25.71%)
35 (100%)
9.44 ± 9.8

2 32 .

고 찰

10

(direct current)

(barotrauma)

²⁾

³⁾

⁴⁾

가

가

가

300

750 KHz

5 30 W

³⁾⁴⁾

70 100

가

가 ⁵⁾⁶⁾

95%

가

⁷⁻¹¹⁾

White(WPW)

¹⁾¹²⁾¹³⁾

Wolff - Parkinson -

가

WPW

¹⁾

3 5

¹⁾¹³⁻¹⁶⁾

Calkins

가 10%

가 90

85 (94%)

가 248

191 (77%)

가 35 (100%)

Calkins ¹⁾

가

50.6 ± 17.9 msec

가 60.0 ±

22.1 msec

90 msec

가 Silka ¹⁴⁾

가

43 ± 6 msec

가 61 ± 9

msec , 60 msec

가

가

51.56 ±

23.00 msec 2 100 msec

, A V , A V ,

결 과 :

35 , 25 : 10

37 .

11 26

가 2 .

Calkins ¹⁾

0.06 6.33 0.62 .

가 31.7 ± 11.4 msec

AoVo 20 msec 120 msec

가 45.7 ± 19.6 msec

51.56 msec . ApVp 20 msec 100 msec

Silka ¹⁴⁾ 가 15 ± 3

51.88 msec . 25.71%

msec 가 18 ± 4 msec

4.48 .

QRS

결 론 :

Calkins ¹⁾ 가 -7.44 ± 13.3

msec 가 -18.1 ± 18.7 msec

Silka ¹⁴⁾

가 -4 ± 2 msec 가 -

중심 단어 :

2 ± 3 msec 가 .

가

Calkins ¹⁾ 77%, Warin ¹⁵⁾ 50%,

1994

Jackman ¹⁶⁾ 92%

가

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25%

Calkin ¹⁾ , Warin ¹⁵⁾ Jackman ¹⁶⁾

가 .

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요 약

연구배경 :

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