

상심실성빈맥시 ST분절의 하강 및 T파의 역위

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= Abstract =

ST Segment Depression and T-wave Inversion during Supraventricular Tachycardia

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Background : Paroxysmal supraventricular tachycardia (PSVT) is frequently associated with ST segment depression or T-wave inversion. However, the mechanism of ST-T changes in the context of various mechanisms of PSVT is not clear. The purpose of this study was to evaluate the prevalence of ST depression or T-wave inversion during PSVT and determine whether these changes are related to the mechanism of PSVT or the rate of the tachycardia.

Method : Twelve-lead electrocardiograms were recorded during sinus rhythm and during PSVT in 163 patients who underwent an electrophysiologic study for ablation. Tachycardia cycle length, presence of ST depression or T-wave inversion during PSVT and the mechanism of tachycardia were evaluated. Significant ST depression was defined as at least 1mm horizontal or downsloping depression, measured 80ms after the J point and T-wave inversion as inversion of T-wave which was positive in the same lead during sinus rhythm.

Results : 1) The mechanism of PSVT analysed for ST segment depression was atrioven-tricular nodal reentry tachycardia in 60 cases and atrioventricular reentry tachycardia in 111 cases. The mean tachycardia cycle length was 373.8 ± 68.0 msec. 2) ST depression and T-wave inversion was observed during PSVT in 56% (96/171) and 45% (77/171) of cases, respectively. 3) Tachycardia cycle length, degree of ST depression and number of leads with ST depression are not different according to the mechanism of PSVT. 4) ST depression and tachycardia cycle length had significant correlation, especially in atrioventricular reentry tachycardia. 5) Leads with T-wave inversion during tachycardia was observed more frequently in atrioventricular reentry tachycardia than atrioventricular nodal reentry tachycardia ($p < 0.05$), but no difference between manifest and concealed bypass tract.

Conclusion : ST segment depression is rate-related phenomenon and not different according to

the mechanism of PSVT. Leads with T-wave inversion during tachycardia was observed more frequently in atrioventricular reentry tachycardia.

KEY WORDS : Supraventricular tachycardia · ST segment depression · T-wave inversion · Tachycardia cycle length.

서론

2. 연구 방법

가 12 - , 4 , , 10 His , .

T 1) ST

ST (ventricular action potential) (retrograde atrial activation) ST 12 -

2). ST T , ST

가 가 , T , T

J point 80msec TP 1mm ST

T 가 , ST 가 ST

ST T 가 , 가

T 가 , 가

t - test p<0.05

대상 및 방법

1. 연구 대상

1995 1 1996 8

가 163

결 과

1. 대상환자 및 빈맥기전

163 171 . 8

isoproterenol 가 10 가 ST

Table 1. Incidence of ST segment depression and comparison according to the mechanism of tachycardia

	Total(n=171)	AVRT(n=111)	AVNRT(n=60)	p-value
CL(msec)	373.8 ± 68.0	374.8 ± 63.5	371.3 ± 72.5	NS
ST depression	96(56%)	61(55%)	35(58%)	NS
No. of leads 1mm		2.75 ± 2.5	2.15 ± 2.7	NS
No. of leads 2mm		1.50 ± 3.0	0.95 ± 1.8	NS
Sum of ST depression(mm)		2.86 ± 4.8	3.48 ± 5.0	NS

AVRT : atrioventricular reentrant tachycardia, AVNRT : atrioventricular nodal reentrant tachycardia,
CL : cycle length of tachycardia

T
2가
37 ± 16
80 , 83 . 171
60 ,
111 54 ,
57 .
2. ST분절의 하강과 빈맥기전
ST
Table 1 ST , ST
1mm 2mm ,
ST
가 .

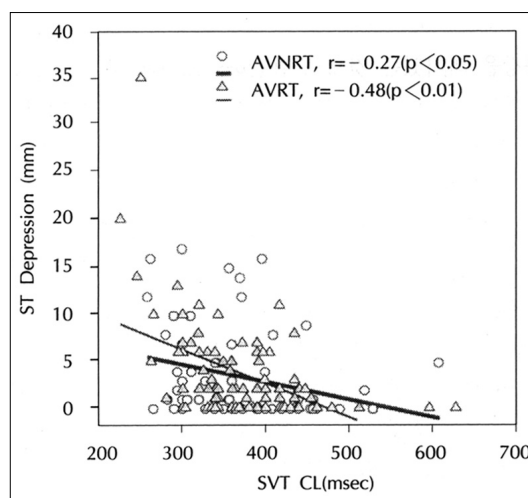
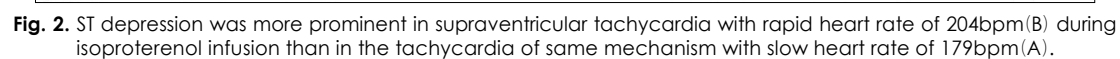


Fig. 1. The degree of ST depression and tachycardia cycle length have significant correlation, especially in atrioventricular reentry tachycardia.

ST 가 3.57 ± 5.9mm
2.13 ± 3.2mm
ST
(p=0.058).
3. ST분절의 하강과 빈맥주기
ST (n=96)
353.2 ± 62.8msec ST
(n=75) 399.7 ± 62.6
msec (p<0.01). ST
(55/111), 37%(22/60)
(p=ns), T
1.4 ± 1.8 ,
0.9 ± 1.4
(p<0.05).
T
isoproterenol (48%, 26/54) (51%, 29/57)
가 10 가 가 . T
ST 2가 8
7 가 (r = -0.16, p=0.03).

ST (Fig. 2),
1 가 ST
가
4. T파의 역위
T 50%
(55/111), 37%(22/60)
(p=ns), T
1.4 ± 1.8 ,
0.9 ± 1.4
(p<0.05).
T
isoproterenol (48%, 26/54) (51%, 29/57)
가 10 가 가 . T
ST 2가 8
7 가 (r = -0.16, p=0.03).



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ST

⁶⁾, Imrie ST 가

가 ⁷⁾, Riva 가 .

³⁾ 요 약

ST

연구배경 :

ST T

가 ST T

, 가

가 , ST

T Riva ST

T

방 법 :

³⁾

가 , T 163 (80, 83)

, ST T . ST

J 80msec 1mm

, T

“ Memory effect ”

가

결 과 :

^{8,9)} 1) 60,

ST T 111 (54, 57)

T 373.8 ± 68.0msec .

가 , ST 2) ST 56%(96/171)

, T 45%(77/171)

ST

가 3) , ST 1mm 2mm

ST 가

, ST (p=.058).

ST

4) ST

ST (p<0.01).

5) T

ST ST

ST 가 (p<0.05)

결 론 :

ST

ST

T

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