

## 관동정맥루 : Coil을 사용한 경피적 색전술

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= Abstract =

## Coronary Arteriovenous Fistula : Percutaneous Transcatheter Coil Embolization

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**Background** : Coronary arteriovenous(AV) fistula is a rare congenital disease, and seldom produce symptoms during childhood. However late complications can occur including congestive heart failure, myocardial ischemia, and bacterial endocarditis. Therefore surgical repair is recommended even if the patients are asymptomatic. In these days many investigators are interested in transcatheter embolization because of high procedural success rate without risks and morbidity associated with cardiac surgery.

**Method** : Five patients(4 females and 1 male) of coronary AV fistula were treated with trans catheter coil embolization. All had symptom of chest pain. In coronary angiograms fistulous tracts were originated from left anterior descending artery(LAD) and drained to main pulmonary artery(MPA) in 4 cases. The other case had abnormal vessel from left circumflex artery(LCX) to bronchial artery. Transcatheter coil embolization were done with Judkins left guiding catheter, 018 inch Tracker or 3F Microferret catheter, and 018 inch coils.

**Result** : The fistula tracts were completely occluded in 3 cases after coil embolization. In 2 cases with multiple fistular vessels, major fistula were occluded, but minor vessels remained. There were no procedure related complications.

**Conclusion** : Transcatheter coil embolization may be an effective treatment modality in coronary AV fistula with excellent result and minimal complications.

**KEY WORDS** : Coronary AV fistula · Coil embolization.

서 론

1).

0.2~0.25%

2). (surgical ligation) (Table 2). 1

3,4). Coil (5-8). coil (guiding catheter) 7F 8F left Judkins cathrter . 0.014inch 0.018inch (guide wire) (superselection) Tracker 18(Advanced Cardiovascular Systems Inc. Santa Clara, California) catheter 3F Microferret(Cook Incorporated, A Cook Group Company, Blooming-ton, Indiana) catheter 가 tracking catheter 0.018inch Hilal Embo-lization Microcoils(Cook Incorporated, A Cook Gr-oup Company, Bloomington Indiana)

대상 및 방법

5 가 1 , 가 4 54 (39~65 ) . 5 1 (crecendo (resting angina) , 3 (Table 1).

3 1 . 1 coil 가 .

**Table 1.** Clinical findings of patients

Case	Age/Sex	Symptoms	Physical finding	Electrocardiogram
1	58/M	Chest pain	Systolic murmur	Sinus bradycardia
2	56/F	Chest pain, dyspnea	Systolic murmur	Nonspecific ST-T change
3	39/F	Chest pain	Continuous murmur	Within normal limit
4	65/F	Chest pain	No murmur	Complete LBBB
5	51/F	Chest pain	No murmur	Nonspecific ST-T change

**Table 2.** Angiographic findings and results of coil embolization

Case	Fistulae		Qp/Qs	Numbers of coil	Results
	Origin	Drainage			
1	LAD	MPA	1.8	3	Complete occlusion, no chest pain
2	LCX	Bronchial artery		5	Complete occlusion, no chest pain
3	LAD	MPA	1.16	3	Major fistula : occluded, minor fistula : remained no chest pain
4	LAD	MPA		1	Complete occlusion, no chest pain
5	LAD RCA	MPA MPA		3	Major fistula : occluded, minor fistula and fistula from RCA : remained no chest pain

LAD : left anterior descending artery, LCX : left circumflex artery, RCA : right coronary artery  
MPA : main pulmonary artery



가

13,14), 3), 3,13), 13), 13)

(aortopulmonary colla-  
teral), 54

77, 6 (5 )

5), (1 ) 3 coil

1960 2~4% coil 가

3,4,15), 가 19), (left heart  
side) drain

3.6% 5), 1974 Zube-  
rhubler (thoracic vessel)  
16), coil de- 가

tachable balloon, polyvinyl foam  
(aortopulmonary collateral)  
19), 가

1983 Reidy detach- 요 약  
17),

1990 5-9,18) 연구배경 :

Detachable balloon guiding

가 (branch vessel)  
1),

tortuous (catheter) 가  
가 coil

coil 대상 및 방법 :  
5 coil  
. 5 가 4 , 가 1 ,

umbrella coil 54  
가 catheter 4

( 가 11F ). umbrella Judkins left  
coil guiding catheter 018 Tracker 3F Microfe-  
rret catheter, 018 coil

가 , 3 coil

결 과 :  
5 3 가  
. 2 가 가

(guiding catheter) (guide wire) , 가  
disruption,

결 론 :

coil

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