

관정맥동을 통한 영구형 심박조율기시술

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= Abstract =

Permanent Pacemaker Implantation via Coronary Sinus

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We report a case of successful ventricular pacing via the coronary sinus in a 34 year-old female patient admitted because of repetitive dizziness and syncope. She had rheumatic valvular disease with mitral valve replacement 14 years earlier, and the mitral, aortic, and tricuspid valves were subsequently replaced with prosthetic mechanical valves 4 years ago. Two years after the triple valves replacement, complete AV block developed with symptoms of dizziness and syncope. A permanent pacemaker was implanted epicardially. Six months later the epicardial lead was replaced because of increased pacing threshold. A year later the epicardial lead had to be replaced because of increased threshold and capture failure to pace. To avoid further thoracotomy, a Medtronic 2188 electrode was implanted in the posterior left ventricular vein via the coronary sinus. Pacing threshold was 1.2volt/0.4msec. Five days later, the pacing threshold increased to 3.0volt/0.4msec. Prednisolone had been given for 10 months. The new system has been functioning well and the pacing threshold was 1.0volt/0.4msec at 11 months after implantation. Ventricular pacing via the coronary sinus can be an alternative to the epicardial pacemaker system in patients whose tricuspid valves have been replaced with mechanical prosthetic valves.

KEY WORDS : Complete AV block · Permanent pacemaker · Coronary sinus.

서 론

1963

¹⁾, 1971 J
^{2,3)}

1958

교신저자 : , 110 - 744 28
) (02) 760 - 2224,) (02) 762 - 9662

가

증례

: 34 ,
 : 3
 : 14 ,
 (Ionescu - Shiley) , 4
 , 3
 (Carbomedics)
 . 3
 (VVI)
 6 가 7.5volt/1.0msec

1 가 7.5volt/1.0msec
 : 11 (femoral artery)
 : 110 150/70 90mmHg,
 33 40 / , 36.0 , 18
 20 /
 metallic click

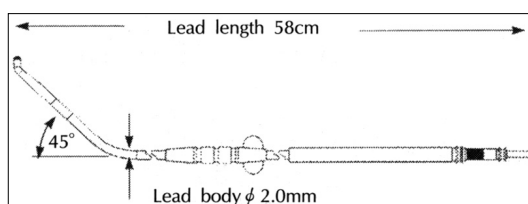


Fig. 1. Coronary sinus pacing lead (Model 2188, Medtronic, Inc.) It is a bipolar type, and the material of electrode tip and ring is platinum alloy.

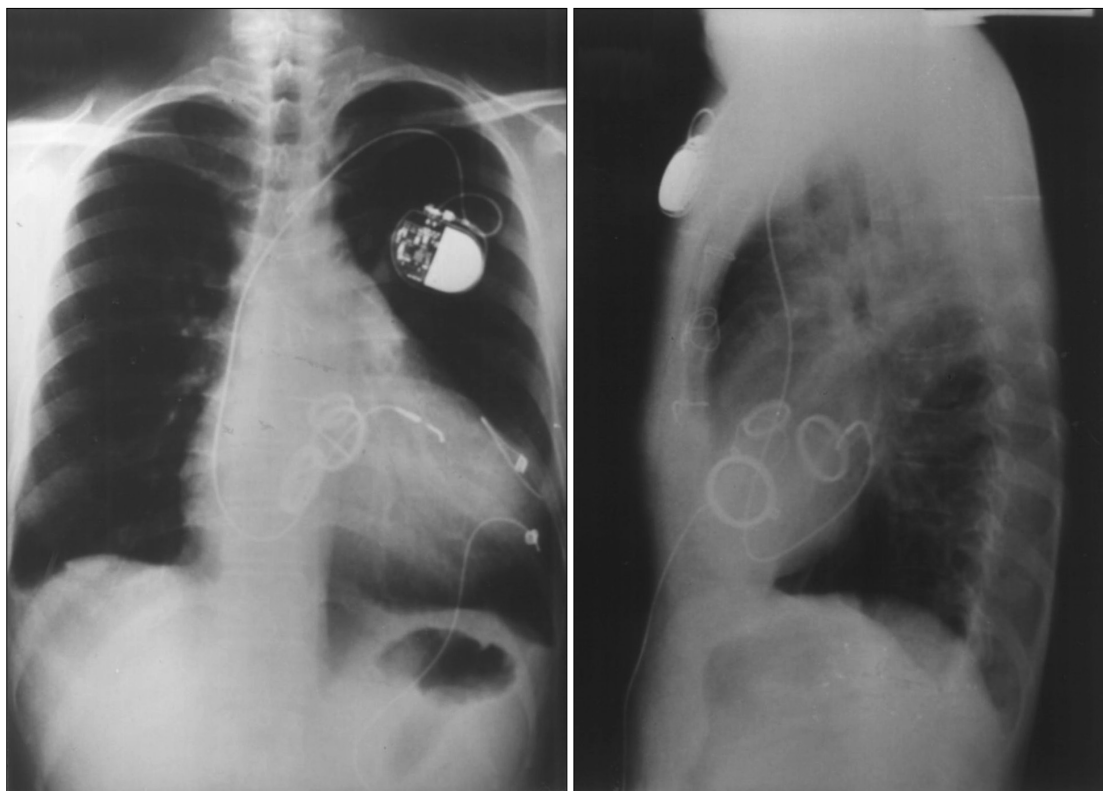


Fig. 2. Chest radiograms of coronary sinus pacing lead in posteroanterior (A) and left lateral (B) projections. The redundant epicardial leads are still in situ.

가 , 4.0volt/1.0msec

prednisolone 60mg/day

10 11

1.0volt/0.4msec , lead impedance

958 ohms , 2.0volt/1.0msec

2

고 안

4

valium 5mg

cefazolin 1.0gm, gentamicin

60mg

가 4,5), Fontan

가 - (mechanical AV sequencing) 가

(Fig. 2). 1.2volt/ 6).

0.4msec 2.0volt/1.0msec

(Fig. 3) 5

가 3.0volt/0.4msec

2. 관정맥동 전극선(Medtronic 2188)의 특징

58cm,



Fig. 3. Surface ECG during coronary sinus pacing showing RBBB pattern suggesting left ventricular pacing.

11mm , bipolar .

(Fig. 1).

(dislo -
dgement) 가

5. 앞으로의 전망 가

가 가

가

3. 관정맥동 조율시술후의 경과

Fontan unipolar
carbon tipped electrode posterior cardiac vein

요 약

가 1.8 2.1volts
5)
가 . 5
76% 가 7)

: 34

14

, 4

. 3

4. 관정맥조율의 문제점

가 가

(VVI)
가

가

5)

가

가

. Medtronic 2188

posterior left ventricular vein

1.2volt/0.4 msec

Blackburn

5

(3.0volt/0.4msec)

4).

10

8)

1.0volt/0.4msec

가

가

가

가

left phrenic nerve

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