

가와사키병의 기왕력을 가진 15세 소아에서 발생한 관동맥 협착에 대한 스텐트 삽입술

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Coronary Stenting in 15 Year-old Boy with Coronary Artery Stenosis Secondary to Kawasaki Disease

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ABSTRACT

Kawasaki disease is an acute febrile illness frequently developed in infants and children. This disease may involve coronary arteries in 15 -25% of the patients and may progress to coronary aneurysms, ischemic cardiac diseases, and sudden cardiac death. Recently we experienced successful balloon angioplasty followed by coronary stenting in a 15-year old boy with unstable angina secondary to Kawasaki disease. He was diagnosed as unstable angina by 24 hours Holter monitoring, treadmill exercise stress test, echocardiography, and Dip-yrindamole 99mTc-sestamibi scan. And coronary angiogram revealed severe multiple stenosis and aneurysmal changes due to Kawasaki disease. We successfully performed a percutaneous transluminal coronary angioplasty with stent implantation in the left circumflex arterial lesion. (**Korean Circulation J 2000;30(10): 1300-1306**)

KEY WORDS : Kawasaki disease · Stent · Coronary artery disease.

서 론

가와사키병은 소아에서 흔히 발생하는 급성 발열성 질환이다. 이 질환은 환자의 15-25%에서 관동맥을 침범하며, 관동맥 협착, 관동맥류, 허혈성 심장질환, 그리고 갑작스러운 심장사를 초래할 수 있다. 최근 우리는 성공적인 풍선 혈관成形술을 시행한 후 스텐트 삽입술을 시행한 15세 소아에서 관동맥 협착을 경험하였다. 그는 24시간 홀터 모니터링, 운동 스트레스 테스트, 심초음파, 그리고 디피리다몰 99mTc-세스타미비 스캔을 통해 불안정한 협심증으로 진단되었다. 그리고 관동맥 혈관造影는 심각한 다중 협착과 관동맥류 변화를 보여 주었다. 우리는 성공적으로 관동맥 혈관成形술을 스텐트 삽입술을 시행하여 좌회전 관동맥 협착을 치료하였다. (**Korean Circulation J 2000;30(10): 1300-1306**)

키워드 : Kawasaki disease · Stent · Coronary artery disease.

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90% 가
 Dipyridamole 99mTc- : 100/70 mmHg, 88
 sestamibi scan / , 36.3 167.7 cm(50 75 percen-
 tile), 50 Kg(25 50 percentile)

증 례

: , 15 ,
 :
 : 2
 가 2
 2 가 가 1
 가 5
 가 , 24
 가 : 3 가

: Creatine Kinase(CK)/CK - MB iso-
 enzyme 96/2.03 mg/dl, cardiac Troponin T 0.03 IU/
 L , total lactate dehydrogenase(LDH) 536
 IU/L 가 LDH
 LDH1/LDH2 29.84/32.06 IU/L LDH1
 가 . Total cholesterol 139 mg/dL, trigly-
 ceride 58 mg/dl, high density lipoprotein(HDL) -
 cholesterol 52 mg/dl, Aspartate aminotransferase
 (AST) /Alanine aminotransferase(ALT) 14/6 IU/L
 . erythrocyte sedimentation rate(ESR, Wintrobe)
 5 mm/hour

I, aVL, V4-6

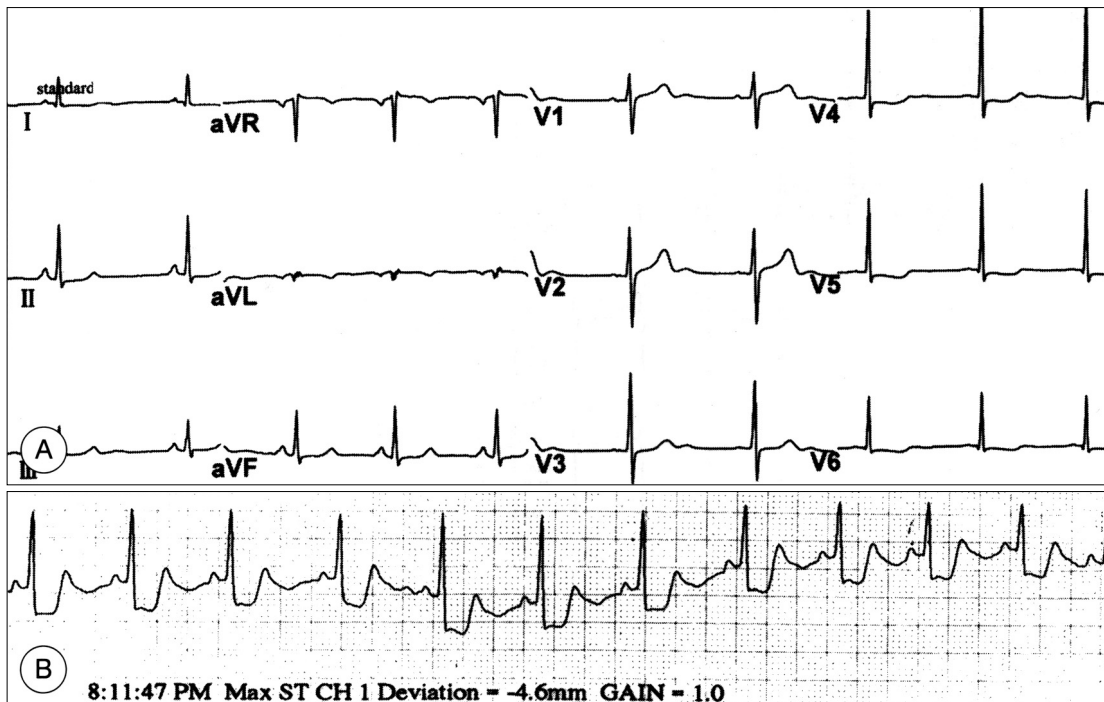


Fig. 1. A : Resting ECG on admission showed depressed ST segment in lead I, aVL, and V4-6. B : Twenty four hour Holter monitoring demonstrated ST depression when the patient felt pain in his chest.

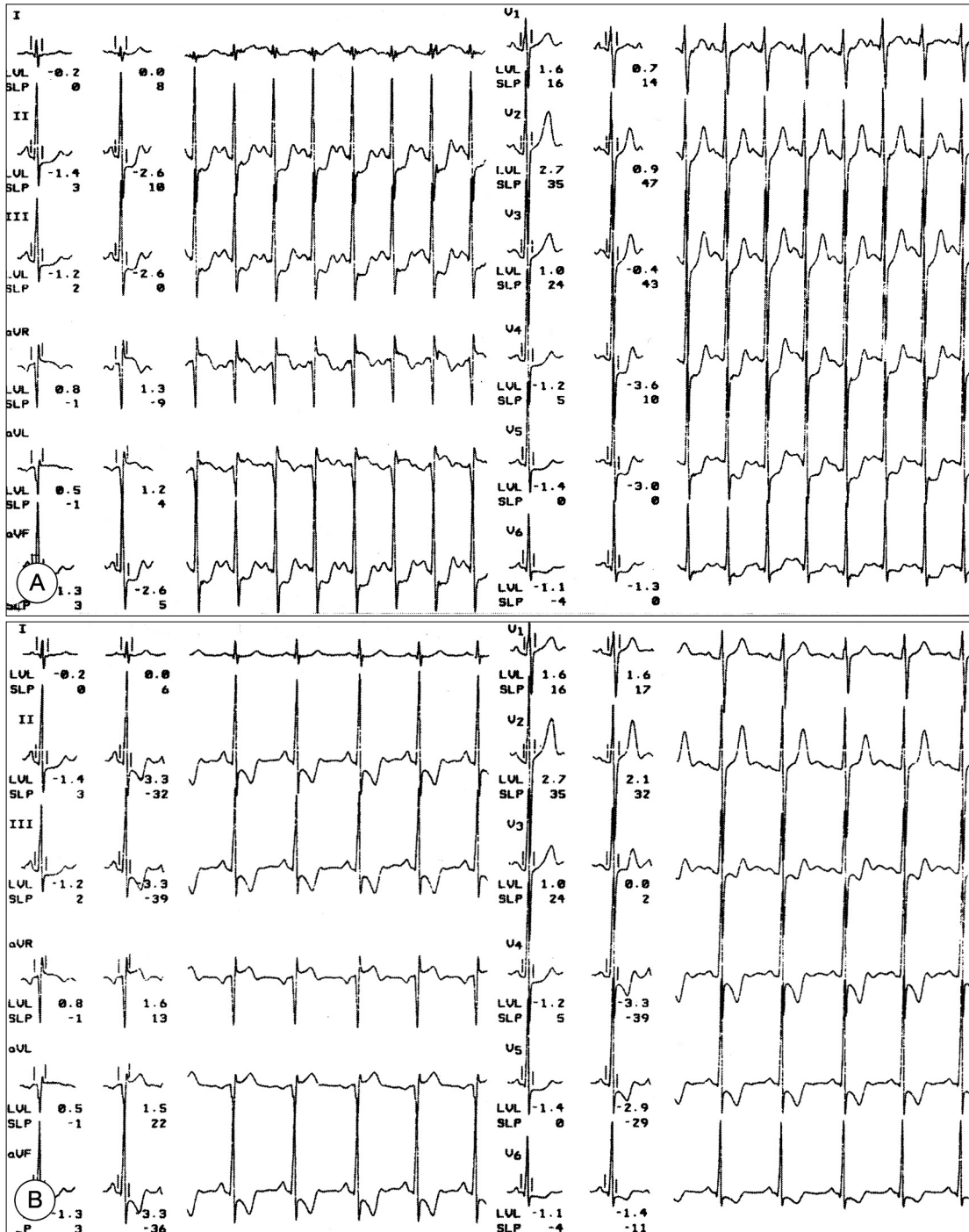


Fig. 2. Treadmill exercise stress test using Bruce protocol revealed significant ST segment depression in lead aVF, and U4-6 with chest pain.

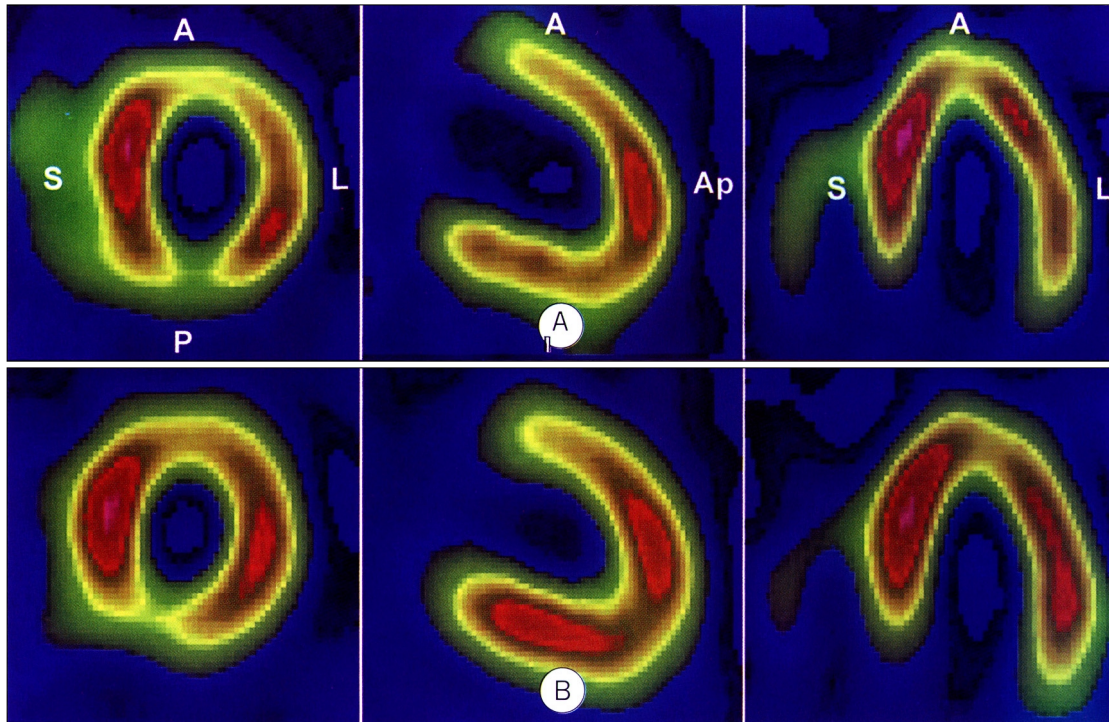


Fig. 3. Dipyridamole ^{99m}Tc -sestamibi scan. Dipyridamole stressed view (upper panel, A) and redistribution view (lower panel, B) on short (left), vertical (mid), and coronal (right) sections. Dipyridamole stressed view showed fixed defect at anterior and part of posterior wall and reversible perfusion defect in the anterolateral, posterolateral, and inferior wall. A : indicates anterior wall ; Ap : apical ; I : inferior ; L : lateral ; P : posterior ; S : septal wall.

| | | | | |
|-----------------------------------|--------------------------|----------------------------|--------------------|-------------|
| 1mm ST | (Fig. 1A) 24 | 가 | 가 | (re- |
| Holter | 4.6 mm | versible perfusion defect) | (Fig. 3). | |
| ST | (Fig. 1B). | : | | |
| (treadmill exercise test) | Bruce protocol stage | LDH | aspirin cilostazol | 2 |
| 11 (8 METS) | , , aVF, | . | | |
| V ₄₋₆ 1.5 mm ST | stage | | | |
| 32 3.2 mm ST | (Fig. 2). | heparin, nitrate | | nicorandil, |
| 14 | | propranolol, diltiazem | | 8 |
| | | | : | 2 |
| | | | (Fig. 4A) | |
| regional wall motion score 22 , | | 가 | | |
| index 1.375 . | 58% | (ostium of left anterior | | |
| | | descending artery) | 40% | |
| ^{99m}Tc -sestamibi scan | Dipyridamole | 가 | | |
| | (fixed perfusion defect) | | | (big first |

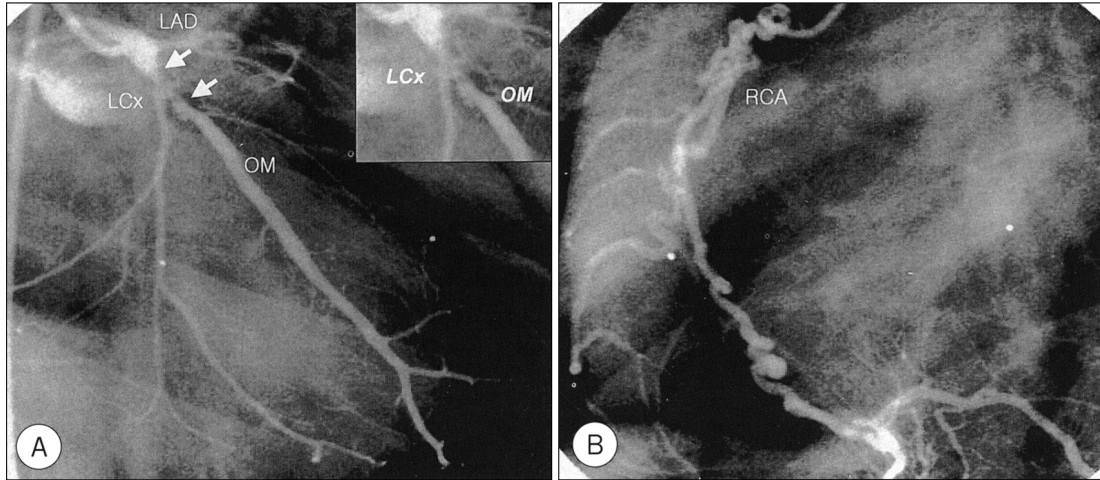


Fig. 4. Initial coronary angiogram of the left coronary artery (A) and right coronary artery (RCA) (B). A : Left coronary angiogram revealed total occlusion of proximal left anterior descending artery (LAD) and 90% stenosis (arrow) of proximal left circumflex artery (LCx) with small amount of thrombus. The magnified stenotic lesion was shown on the right top. B : Right coronary angiogram revealed multiple aneurysmal deformity of RCA with tortuosity.

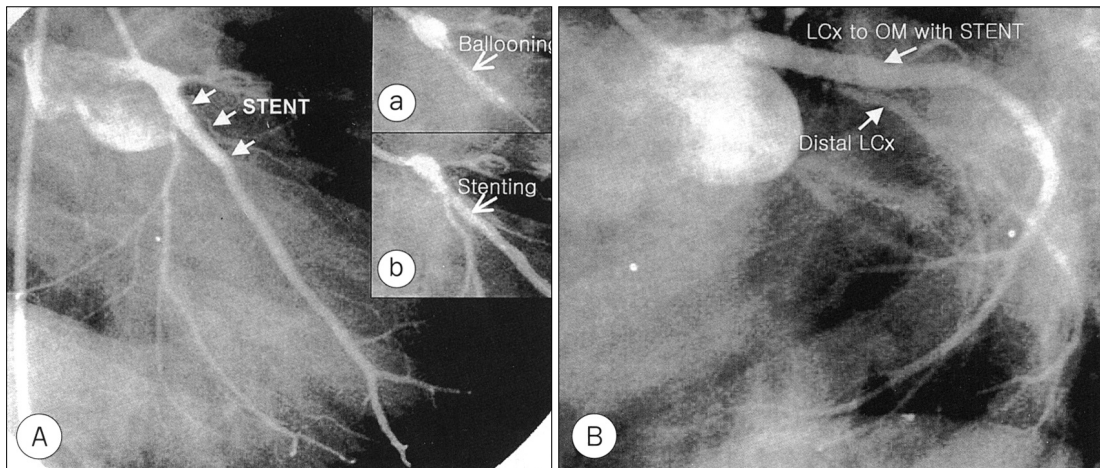


Fig. 5. Coronary angiogram after coronary stenting from proximal LCx to obtuse marginal (OM) branch showed no residual stenosis. A : Balloon angioplasty was performed initially (A-a. the first box on the right top). After balloon angioplasty, MAC stent was deployed at proximal LCx (A-b. the second box on the right top). B : Follow-up coronary angiogram after stenting, LAO cranial view.

obtuse marginal branch) (tortuous aneurysmal change)
 Grade / 가 . nge)
 (left circumflex artery) . 8
 90%
 (= 3.35 mm, : Seldinger's method 7_{1/2}Fr sheath
 0.6 mm) (DAIG Corporation, Minnetonka, MN, USA)
 . 7Fr JL4 guiding catheter (Cordis, Miami, FL, USA)
 (Fig. 4B)

CHOI -
CE™ PT guiding wire(0.014" × 182 cm : SCIMED,
Maple Groove, MN, USA)
angiopl -
asty dilation catheter(Adante™ 3.0 × 20 mm : SC -
IMED, Maple Groove, MN, USA)

6
15 , 8 8 , 10 15 3
(Fig. 5A)
30 40% (MAC
stent 3.5 × 27 mm : AMG, Germany) 10
15 (Fig. 5A).
(Fig. 5B).

MB 6 , 12 , 24 CK -
1.91, 1.10, 1.01 mg/dL
10
118

고 찰
가 5
15 20%
14) 가
3) 가
(coronary aneurysm)
가

5)7)
1)3)6-10)
가

, Dipyri -
damole
가 가 ,
8-10)
Miyagawa 10)
가 ,
가
가
(directional or rotational ath -
erectomy),
11-14)

15)16)
가
가
가 가 가
15 가 가 가
가 가
24

90%
Dipyridamole 99mTcs -
estamibi scan
가 가 ,
가 가 .
가
가

11)12)14)
15)16)
가 ,
3 mm가

중심 단어 : 가

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