

대동맥 질환의 영상 진단

박 중 춘

Imaging Study of Diseases of the Aorta

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ABSTRACT

New imaging techniques, such as computed tomography, magnetic resonance imaging and transesophageal echocardiography, have improved the detection of diseases of the aorta. The development of these techniques has led to further insight into the pathogenesis of aortic diseases, new strategies for decision making and patient management. Early stabilization of patients should be followed by an extensive analysis (staging) of the patient's aorta, the coronary, carotid and peripheral arteries. Therefore, we must understand and use these imaging studies to manage aortic and vascular diseases. Patients with aortic diseases should also be cared for by specialists, including cardiologists, interventional radiologists and vascular/cardiovascular surgeons, who should work as a team and be involved in all the decision making steps. (**Korean Circulation J 2002;32(11): 941-948**)

KEY WORDS : Aortic diseases ; Diagnostic imaging.

서 론

최근 컴퓨터 단층촬영 (computerized tomography : CT), 자기공명영상 (magnetic resonance imaging : MRI), 초음파 (ultrasonography) 등의 영상 진단 기술의 발달로 대동맥 질환의 진단 및 병기 결정에 많은 도움이 되고 있다. 대동맥 질환은 대동맥 자체의 질환과 대동맥을 포함한 혈관 질환으로 나눌 수 있다. 대동맥 자체의 질환으로는 대동맥 확장증, 대동맥 벽의 병변 (intramural hematoma, dissection), 대동맥 죽상 경화증 (atheroma), 대동맥 천공성 궤양 (penetrating ulcer) 등이 있다. 대동맥을 포함한 혈관 질환으로는 대동맥 협착증, 대동맥 분지 혈관 질환 등이 있다. 대동맥 질환의 진단 및 병기 결정에 많은 도움이 되고 있다. 대동맥 질환의 진단 및 병기 결정에 많은 도움이 되고 있다.

초음파 (transesophageal echocardiography : TEE)가 CT, MRI, TEE와 함께 대동맥 질환의 진단 및 병기 결정에 많은 도움이 되고 있다.

주요어 : 대동맥 질환 ; 진단 영상

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(intramural hematoma), (atheroma), (penetrating ulcer),¹⁾²⁾

주요 영상 진단법
 심초음파검사
 10 MHz
 reentry
 7)
 가 CT
 가
 ()
 가
 가 Spiral CT
 3
 TEE
 MRI
 가 (gadolinium)
 3
 가 horizontal view
 10)
 phase - contrast cine - MRI
 reverberation
 1 - 4)
 가 MRI
 가 가 가
 가
 3 - 5)
 (intravascular ultra- clips,
 sound) 가 11)
 TEE가 가
 MR angiography MRI
 (epia-
 ortic ultrasound)가 가 6)
 fenestration
 대동맥 박리
 7.5 2

중요 질환에 대한 영상 진단

Table 1. Diagnostic sensitivity and specificity for aortic dissection

Method	Sensitivity	Specificity
TTE	59 - 85%	63 - 96%
TEE (single plane)	99%	77 - 98%
CT with contrast	94%	87%
MRI	98%	98%
Aortography	88%	94%

TEE : transesophageal echocardiography, MRI : magnetic resonance imaging

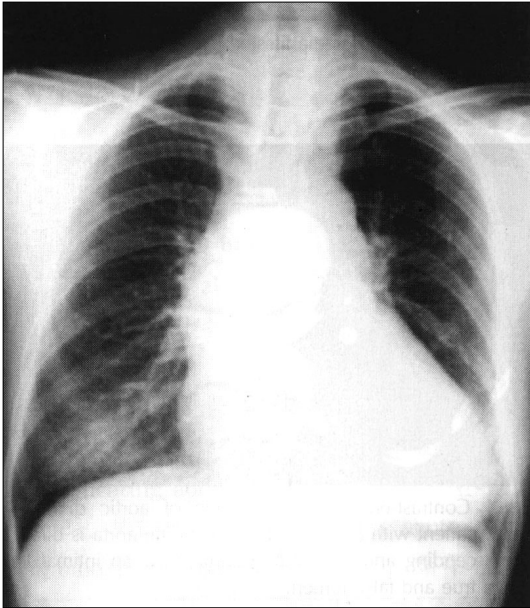


Fig. 1. Chest radiography revealed the widening of the mediastinal shadow, which has been reported in up to 50% of cases of aortic dissection. The ascending aorta bulges to the right due to the dissection.

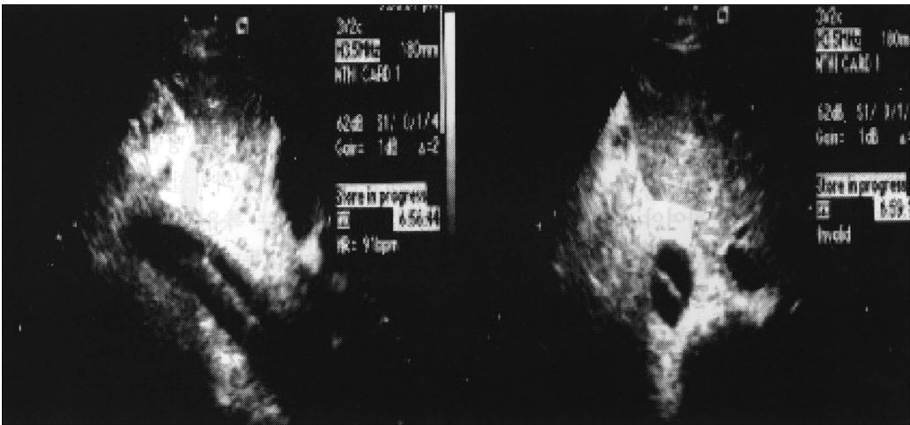


Fig. 2. Transthoracic echocardiogram of the abdominal aorta (same patient with figure 1). An aortic dissection is manifested by the presence of a true lumen, a false lumen, and a free-floating intimal flap.

945

. TEE, CT, MRI
 가 . 가 . 가
 가 . TEE 가
 CT angiography . spiral CT 1 cm
 echo lucent
 (impending rupture)
 가 .
 가 .¹⁹⁾²⁰⁾ spatial orientation
 . CT (transection) 가
외상성 대동맥 질환
 (deceleration injury) . (ligamen-
 tum arteriosum) 가 가
 (Fig. 6).
대동맥의 동맥경화증
 , . 15~20%
 , , , ,
 TEE (plaque)
 가 , (aortic debris)
 가 가
 가 .
 가 . har-
 가 . monic imaging signal to
 가 . noise ratio
 가 . suprasternal view

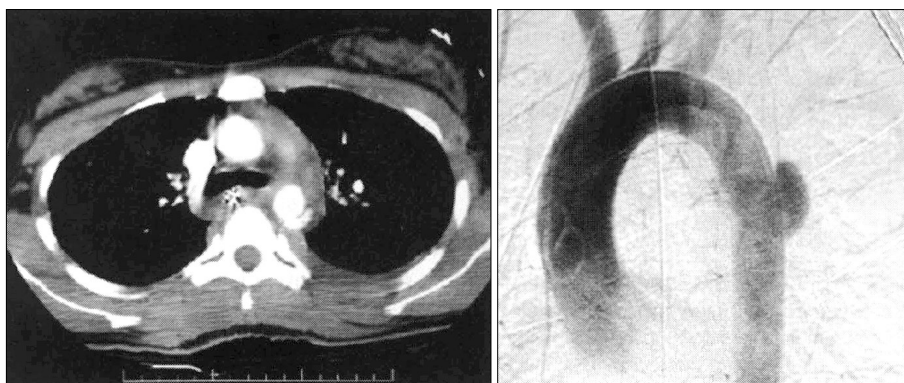


Fig. 6. Computed tomogram and aortogram of pseudoaneurysm of the descending aorta due to trauma (falling down) in young woman (reprinted from MGH).

TEE

CT, MRI,

가

중심 단어 :

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