Localized dissection detected only by transoesophageal echocardiography

Dissection localisée détectée par l’ETO seule

Soichiro Ichikawa *, Noritomo Fujisaki, Shigeru Fukuzawa

Division of Cardiology, Funabashi Municipal Medical Center Heart and Vascular Institute, Funabashi, Japan

Received 11 February 2011; received in revised form 31 March 2011; accepted 4 April 2011
Available online 24 October 2011

A 39-year-old man was taken to our hospital due to CPA. He had suddenly complained of breathing difficulties and chest pain half an hour earlier, then quickly had a CPA. After arrival, we achieved successful resuscitation. A chest X-ray revealed severe lung congestion. TTE showed normal left ventricular function and end-diastolic diameter (45 mm), but severe aortic regurgitation and premature mitral valve closure were present. He did not have a history of Marfan syndrome, bicuspid valve or heart murmur. We suspected that the cause of heart failure and CPA was acute aortic regurgitation resulting from AAD, based on symptoms, history and TTE findings. However, because we could not detect the dissection flap with TTE, CE-CT was performed. CE-CT did not show the flap within the aorta (Fig. 1), so TEE was performed and revealed the localized dissection flap displacing the aortic valve during ventricular diastole within the ascending aorta, which was normal in diameter (35 mm) (Fig. 2). In this case, only TEE could identify the localized dissection flap. The patient was not scheduled to undergo surgery because of hypoxic brain damage.

Abbreviations: AAD, acute aortic dissection; CE-CT, contrast-enhanced computed tomography; CPA, cardiopulmonary arrest; TEE, transoesophageal echocardiography; TTE, transthoracic echocardiography.

* Corresponding author. 1-21-1, Kanasugi, Funabashi, Chiba, 273-8588, Japan.
E-mail address: s.i.wo.ow@gmail.com (S. Ichikawa).

Figure 1. Contrast-enhanced computed tomogram, which did not detect the dissection flap within the aorta.

We believe that CE-CT is the most useful test for diagnosis of AAD [1,2], but even if CE-CT does not reveal the flap, localized dissection should not be ruled out [3]. If localized dissection is suspected, we would perform CE-CT with a slice thickness of 1 mm, which may enable us to detect the flap quickly.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.

References