Management of Aortic Dissection

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Dear Editor,

Totonchi et al.'s study (1) explores the account of a 45-year old male patient who was using digoxin and warfarin and had undergone an antecedent valve replacement due to aortic insufficiency approximately 35 years before. It is particularly noteworthy that a femorofemoral bypass was performed prior to the Bentall surgery and that no sedative, muscle relaxant, or endotracheal intubations were applied. In spite of the successful surgical procedure, the patient died as a result of a repeat aortic dissection that occurred on the 30th day of the postoperative period (1). The authors emphasize the value of special care, as it can prevent myocardial depression and major changes in blood pressure during deep and smooth anesthetic inductions. In addition to the potentially negative effects of anesthetic management on patients with aortic dissections, the authors discuss the mechanisms of superior vena cava syndrome and the significance of maintaining spontaneous respiration in cases where it occurs (1). They also evaluate the accuracy of CT computed tomography (CT) angiography and magnetic resonance imaging (MRI), with sensitivity and specificity rates ranging from between 87% to 100%, for the diagnoses of aortic dissections. CT angiographies and MRI scanners favor lower primary mortality rates and are essential to the early diagnoses of aortic dissections (1).

By contrast, dos Santos et al.'s case report addresses data that was collected from an aortic dissection 40 days after a patient's mitral valve replacement (2). The patient was a 61-year old Brazilian man who was experiencing myxomatous degeneration of the mitral valve. The degeneration was first corrected with a biological prosthesis and was later submitted for two additional valve replacements. In the last procedure, a mechanical valve was used. Aortic cannulation was performed without perioperative intercurrents or complications, and an echocardiographic study revealed normal values (2). However, a DeBakey type III aortic dissection was suspected late during the postoperative period and was confirmed by echocardiography

and computed angiotomography images. In spite of the conspicuous extension of the original dissection (distally up to the iliac arteries, and proximally up to the brachiocephalic trunks and common carotid left subclavian arteries), the patient was exclusively and successfully managed with conservative clinical care (2). Currently, he is asymptomatic, under outpatient care, and performing all activities normally. In this case study, the early diagnosis and prompt treatment of the aortic dissection, conditions which signal the successful management of this complication, are particularly noteworthy. However, mechanisms related to the absence of complications and to the successful conservative management of aortic dissections that are diagnosed during late postoperative periods remain unspecified (2).

In Onitsuka et al.'s (3) evaluation of 76 patients with acute type B aortic dissections, the presence of patent false lumens, in addition to maximum aortic diameters that were greater than 40 mm, were considered to be the factors that were most strongly linked to the development of aortic complications. The major prognostic factors of this condition include atherosclerosis, high blood pressure control, blood flow through false lumens, and maximum aortic diameters and/or enlargement rates (3).

Because the initial symptoms of aortic dissections are often unspecific and can occur at any time after invasive procedures that involve cardiac structures, the clinical suspicion index is very important to overcoming diagnostic challenges (2). Therefore, case reports can be used to help non-specialists identify these potentially lethal entities.

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