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Aortic Valve Papillary Fibroelastoma Presenting Acute Stroke

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Abstract

Background: Papillary fibroelastoma is uncommon in cardiovascular disease and is found incidentally during surgery or transesophageal echocardiography. Because it presents severe diverse clinical syndromes including acute stroke and chronic angina, timing of operation is an important issue. Case presentation: We report a case of 69-yearold man diagnosed with acute stroke presenting aphasia. Transesophageal echocardiography identified a flail tumor on the non-coronary cusp of aortic valves. Because he had no history of persisting fever, that was regarded as the cause of embolic stroke.

The patient underwent simple resection of tumor with aortic valve repair to prevent from recurrence of embolism. Conclusion: Although papillary fibroelastomas does not induces acute stroke frequently, surgical intervention is necessary for preventing from recurrence of embolism. Transesophageal Echocardiography (TEE) is efficacious for differential diagnosis for cardiogenic stroke.

Papillary Fibroelastom (PFE) is the second most common benign tumor of heart and presents with syndromes including embolic events and chronic angina without coronary artery disease in several patients. Transesophageal or Transthoracic Echocardiography (TEE, TTE) is the most effective tool to diagnose PFE preoperative. Surgical excision is necessary if PFE is left-sided flail lesion and greater than 1 cm in diameter. If patient exhibits angina or embolic events, surgical outcome is excellent. We report a case of a 69-year-old man, with acute stroke and incidentally found with PFE on the non-coronary cusp of the aortic leaflets.
A 69-year-old man who had a history of percutaneous coronary intervention for Acute Myocardial Infarction (AMI) 10 years ago, presenting high blood pressure and dizziness. The patient exhibited aphasia at emergency room which was confirmed and disappeared at next day. Although Computed Tomography (CT) of brain showed no cerebral infarction, Magnetic Resonance Imaging (MRI) demonstrated small old cerebral infarction sections at occipital lobe. Magnetic Resonance Imaging (MRI) showed mild stenosis of right middle cerebral artery which is not relevant to aphasia. Because he had history of Acute Myocardial Infarction (AMI), Transesophageal Echocardiography (TEE) was performed. TEE revealed that a small, rounded and high echoic nudule on the non-coronary cusp. It was flail and sized approximately 10×5 mm. He had no history of persisting or spike fever, so infective endocarditis was excluded.

According to its appearances, the diagnosis of Papillary Fibroelastom (PFE) was made. We suspected that PFE was cause the aphasia resulting in debris-embolism or thromboembolism. Therefore, tumor resection assisted by cardiopulmonary bypass was indicated. Operative findings showed that the tumor adhered to noncoronary cusp by thin stalk, accessary tumor was confirmed on the ventricular side of non-coronary cuspid. We resected tumor without injurying aortic valve cuspid. Postoperative course was uneventful. Definitive pathological diagnosis was PFE. Postoperative TEE showed no aortic regurgitation, there was no tumor recurrence 6 months postoperative.

Although papillary fibroelastomas induces acute stroke not frequently, surgical intervention is necessary for preventing from recurrence of embolism. Long term regularly examinations postoperative need to be performed to follow recurrence and aortic regurgitation.
Hematoxylin and eosin stain. Tumor showed narrow enlargement and branching papillary fronds formed with vulnerability. Endothelial cell of tumor showed surface maker CD31 positive. Definitive diagnosis of papillary fistoelastoma was made.
He persistent experienced straightforward resection of tumor with aortic valve fix to keep from repeat of embolism. End: Although papillary fibroelastomas doesn't

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instigates intense stroke oftentimes, careful intercession is vital for keeping from repeat of embolism. Transesophageal Echocardiography (TEE) is useful for differential finding for cardiogenic stroke.