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Case report

Papillary fibroelastoma originating from the free left ventricular wall as the cause of recurrent stroke: Description of the case and literature review

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ABSTRACT

Papillary fibroelastoma is the third most common primary benign cardiac tumor typically found on the endocardium of heart valves, most often left-heart ones. The authors present the case of a 52-year-old patient experiencing recurrent cardioembolic stroke involving the cerebral arteries secondary to a fibroelastoma originating from the free left ventricular wall and, given its symptomatic nature, indicated for surgical excision.

Case report

A 52-year-old man, a long-time smoker, otherwise without a significant personal history, was hospitalized, in May 2013, in a regional hospital for protracted impairment of consciousness assessed as an equivalent to epilepsy; therapy with valproate was initiated. Brain CT performed at that time identified two ischemic foci in the right hemisphere cortex. Subsequent echocardiography did not document obvious heart disease. In September 2013, the patient was re-hospitalized for eye paresis in the presence of brainstem stroke. Computed

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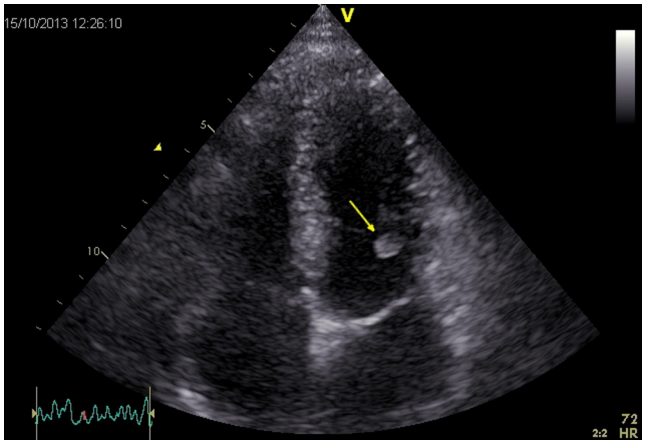

Fig. 1 – A transthoracic echocardiographic image documenting a pathological spherical mass in the left ventricle close to the basal segment of the lateral wall (arrow) (apical four-chamber projection).

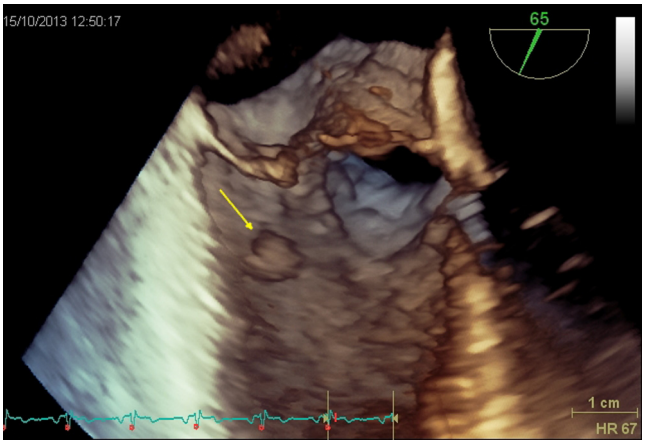

Fig. 3 – An esophageal 3D echocardiographic image demonstrating the presence of a pathological spherical mass in the region of the basal segment of the lateral wall, above the anterolateral mitral valve commissure (arrow).

tomography detected new, multiple ischemic foci in the brainstem and both hemispheres. As part of the diagnostic work-up to identify the source of cardioembolism, transthoracic echocardiography was performed again identifying a pathological formation in the left ventricle. Antiplatelet therapy was instituted and the patient was referred for further assessment in our center where transthoracic and esophageal echocardiography revealed a spherical, slightly mobile pathological mass measuring approx. 7 mm × 7 mm in diameter in a normokinetic and non-dilated left ventricle (Figs. 1 and 2). The formation originated, as visualized by 3D esophageal echocardiography, in the basal segment of the anterolateral left ventricular wall above the anterolateral mitral valve commissure (Fig. 3). When considering the etiology of the pathological mass in the differential diagnosis, the first option was a primary heart tumor, most likely a benign one and, judging from its morphology, a fibroelastoma. After the necessary additional preoperative assessments, the patient was indicated for surgery, whereby a spherical, brittle, lobe-shaped tumor measuring some 8 mm in diameter was gently removed from the lateral let ventricular wall above the anterolateral commissure (Fig. 4). Histology confirmed a papillary fibroelastoma (Fig. 5). The intraoperative course was uneventful and the patient was discharged in good condition to receive home care.

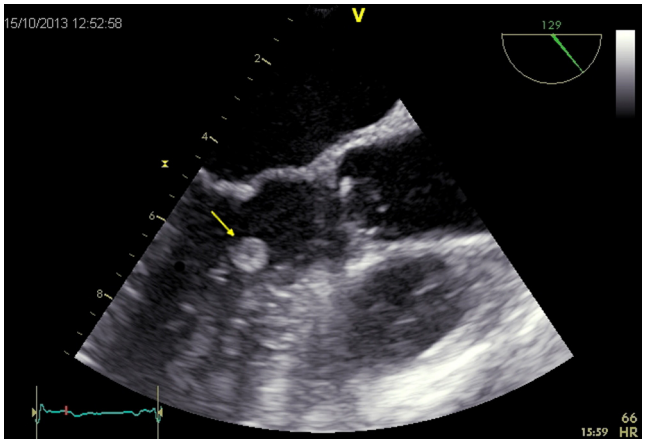

Fig. 2 – A transesophageal echocardiographic image demonstrating the presence of a pathological mass in the left ventricle (arrow) projecting to the region below the outflow tract (left ventricular longitudinal axis projection).

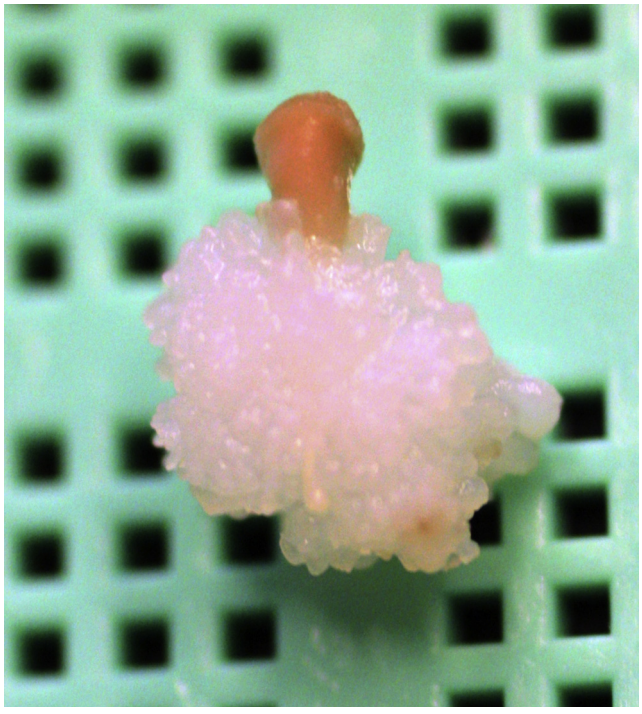

Fig. 4 – Intraoperative finding of an excised gelatinous tumor with numerous tiny papillary projections reminiscent of the sea anemone: a finding characteristic of a fibroelastoma.

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