Echocardiographic finding of Aortic Valve Papillary Fibroelastoma Presenting with Stroke Like Symptoms

Michael Morgan, DO; Cara Ruggeri, DO FACP

St Luke's UNIVERSITY HEALTH NETWORK

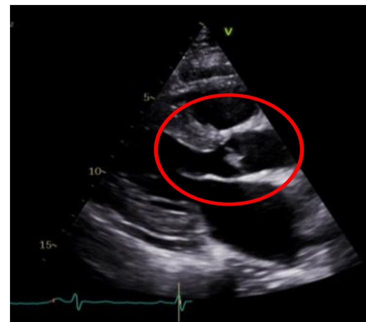
Case Study

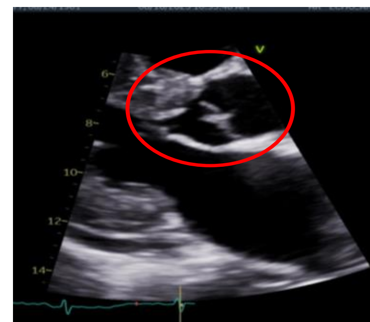
61-year-old female with PMH of type 2 diabetes, asthma, hypertension, osteoarthritis and hyperlipidemia presented with 10 minutes episode of tingling of left corner of her mouth, face and down the entire left side of her body. No loss of sensation, weakness, facial droop, drooling or speech difficulty. Symptoms resolved within 10 minutes. She denied any similar symptoms in the past. Medications included atorvastatin, aspirin and lisinopril. Neuro exam was intact and included no cranial nerve deficits, sensory loss, weakness and normal reflexes.

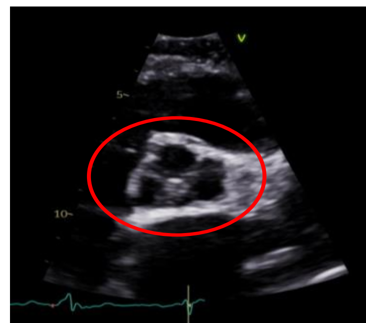
MRI revealed subacute to early chronic lacunar infarcts in the right globus pallidus and left lentiform nuclei. Transthoracic echocardiogram revealed aortic valve papillary fibroelastoma approximately 0.85 cm. Cardiology recommended transesophageal echocardiogram (TEE) which patient refused.

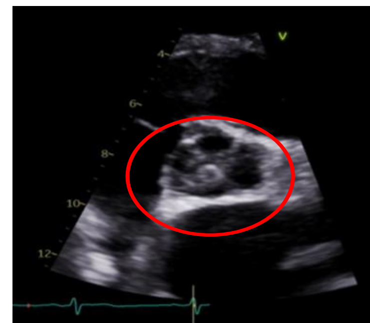
She was prescribed aspirin, atorvastatin and clopidogrel. The patient preferred to continue medical management without any surgical intervention.

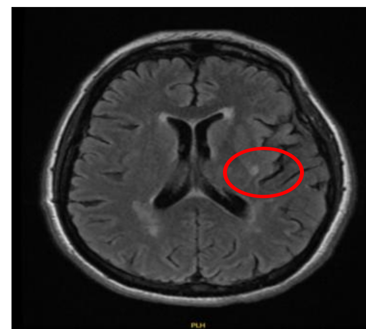
Echo and MRI imaging

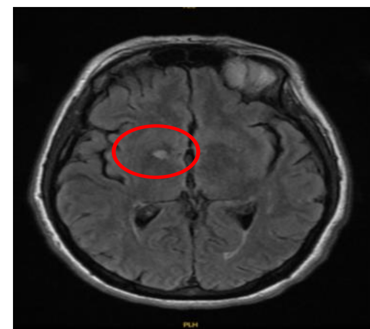












Discussion

Papillary fibroelastoma (PFE): A rare tumor with an incidence of less than 0.1%. Typically identified incidentally on transthoracic echocardiogram. PFEs do not typically have symptoms unless they embolize. If PFEs embolize to the coronary arteries, this will lead to myocardial infarction. If it embolizes to the brain, it may cause a stroke. There are no clearly identifiable risk factors for the development of PFE.

Echocardiographic features: Round, oval, or irregular in appearance, with well-demarcated borders and a homogeneous texture; most PFEs are small (99% were <20 mm in the largest dimension); nearly half of them had small stalks and may be single or multiple lesions.

Complications: Based on the risk of embolization. Studies have reported the risk of sudden cardiac death, ventricular fibrillation, myocardial infarction, and stroke.

Treatment: Surgery or close monitoring. Generally, surgical excision is the recommended treatment unless there is a contraindication to surgery. The goal of surgical treatment is to excise all visible tumor. If the PFE significantly damages a valve, it may warrant valve repair or replacement. If the patient is a poor surgical candidate and yet they are symptomatic, then consideration of anticoagulation is reasonable. The rationale for this approach is to prevent embolic complications. However, there are no randomized controlled trials to support this practice. Asymptomatic patients with a PFE size over 9 mm, highly mobile masses, and independent motion are predictors of poor outcomes and, thus, should be considered for surgery

Reference

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2- Papillary Fibroelastoma, Arvind Reddy Devanabanda; Lawrence S. Lee.