Unraveling the clot: A pinball left atrial thrombus unveiled in ischemic stroke

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Description
Ischemic stroke, a leading cause of morbidity and mortality worldwide, often originates from the occlusion of cerebral blood vessels due to thrombotic formations. Thrombi, typically consisting of aggregated platelets, fibrin, and trapped red blood cells, vary in composition and morphology. This study presents a unique case of ischemic stroke, where transthoracic echocardiography unveiled an extraordinary pinball-like thrombus within left atrium.

We report a case of 59 years old female with a history of acute ischemic stroke who presented to the emergency room with right hemiplegia and aphasia. Her other comorbidities included hypertension and a long history of atrial fibrillation and moderate mitral stenosis on vitamin K antagonist. Her international normalized ratio (INR) was not regularly controlled. Cardiac examination showed loud S1, and mid-diastolic murmur. Bedside TTE confirmed a 44×35 cm free-floating thrombus behaving like a pinball in the severely dilated left atrium and intermittently obstructing the mitral valve. Severe mitral stenosis (mean gradient=5 mm; valve area=0.8 cm²), Diffuse thickening

Figure 1: Apical 2 chambers image of a pinball thrombus.

Figure 2: Apical 4 chambers image of a pinball thrombus.

of mitral valve leaflet with restricted opening (rheumatic-like), moderate tricuspid regurgitation, severely dilated left atrium (maximal dimension=5.5 cm), and preserved left ventricular ejection fraction (60%). The patient underwent thrombus removal and mitral valve replacement.

The identification of this pinball thrombus not only highlights the diverse nature of thrombotic formations responsible for ischemic strokes but also underscores the importance of well conducted anticoagulation treatment in patient with valvular atrial fibrillation.

In conclusion, this exceptional case of ischemic stroke characterized by a pinball-like thrombus emphasizes the importance of comprehensive imaging modalities and histological analyses in unraveling the intricate nature of thrombotic events.