Right atrial ball thrombus associated with atrial septal occluder device: A late complication of transcatheter atrial septal defect closure

In a large autopsy study, intracardiac ball thrombi are usually seen in the left atrium and rarely seen in the right atrium. They may be one or more in number. Right atrial ball thrombus may appear as a complication of central venous catheterization or be coexistent with tricuspid stenosis. A 42-year-old woman who began routine hemodialysis 5 years ago due to chronic kidney disease was admitted to our hospital because of dyspnea. She had undergone secundum atrial septal defect closure with Amplatzer septal occluder (ASO) device 7 years ago and had not received antiplatelet or anticoagulation therapy. She had a normal sinus rhythm. Her physical examination at admission revealed normal results, except for a thrill on the right wrist due to an arteriovenous fistula. Transthoracic echocardiography revealed a large, ball-like thrombus in the right atrium associated with the atrial septal occluder device (Fig. 1, Video 1). The thrombus was 22x22 mm in size, and the morphology of tricuspid valve was normal. The tricuspid regurgitation jet was moderate with a velocity of 3.6 m/s. No residual defect of the septal occluder device was observed. Computed tomography angiography was performed for pulmonary embolism screening, and subsegmental filling defects were detected. In addition, ball-like filling defect adjacent to the ASO device was clearly observed in the right atrium on computed tomography images (Fig. 2). To the best of our knowledge, this is the first case report of right atrial ball thrombus associated with the atrial septal occluder device.