Rapid-Growing Right Atrial Myxoma 7 Months After Catheter Ablation Under Anticoagulation Therapy — Serial Echocardiography and Computed Tomography —

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Figure. Echocardiography and computed tomography (CT) (**Upper**) before and (**Middle**) 7 months after catheter ablation. (**A–D**) There was no tumor-like image on echocardiography and CT. (**E**) Apical 4-chamber transthoracic echocardiography and (**F**) short-axis 2-D transesophageal echocardiography (TEE) of the aortic valve (AV) showing a right atrial (RA) tumor (red arrow) attached near the tricuspid valve (TV). No color Doppler signal was detected in the tumor. (**G**) Cropped 3D-TEE showed a 23×17-mm oval tumor (red arrow) attached to the posterior wall of the RA, but a stalk was not seen. (**H**) CT also confirmed newly developed RA tumor. (**I**) 3-D multiplanar reconstruction showing the whole RA myxoma. (**J**) Intraoperatively, an oval mass was confirmed to be attached to the posterior wall of the RA immediately above the septal cusp of the TV (yellow arrows). (**K**) Histopathology of the resected tumor showing voluminous hemorrhage and extensive hemosiderin deposition. IAS, interatrial septum; IVC, inferior vena cava; LA, left atrium; LV, left ventricle; RV, right ventricle; TA, tricuspid annulus.

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A 65-year-old woman with a history of persistent atrial fibrillation (AF) was admitted to hospital for catheter ablation (CA). Based on a CHADS₂ score of 3, oral anticoagulation therapy was initiated. Before CA, transthoracic echocardiography (TTE) and transesophageal echocardiography (TEE) showed an enlarged left atrium without thrombus. Pulmonary vein isolation and cavotricuspid isthmus block were completed. Seven months after CA, repeat TTE showed a mobile tumor in the right atrium (RA) that was not seen before CA. Second 2-D/3-D TEE clearly delineated this smooth oval tumor attached to the posterior wall of the RA. Comparison of computed tomography before and after CA also confirmed the new development of the RA tumor after CA. The patient underwent surgical excision of the tumor. The tumor was diagnosed as myxoma with intra-tumor hemorrhage on histopathology (**Figure**).

Because cardiac myxoma is found incidentally and is commonly excised after diagnosis, little is known about the growth rate. One of the causes of rapid growth of known myxoma is intra-tumor bleeding.¹ In the present case,

histopathology suggested that intra-tumor hemorrhage at least partly contributed to the rapid growth, and anticoagulation therapy might have promoted intra-tumor hemorrhage and accelerated the growth of the myxoma. Although CA-related stimuli may promote myxoma growth,² the ablation catheter was not touching the area where the RA myxoma was attached; thus, it is unlikely that tissue stimulation by CA led to the tumor development.

Disclosures

The authors declare no conflicts of interest.

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