

## An Aneurysmal Formation of a Septal Branch after Percutaneous Septal Myocardial Ablation

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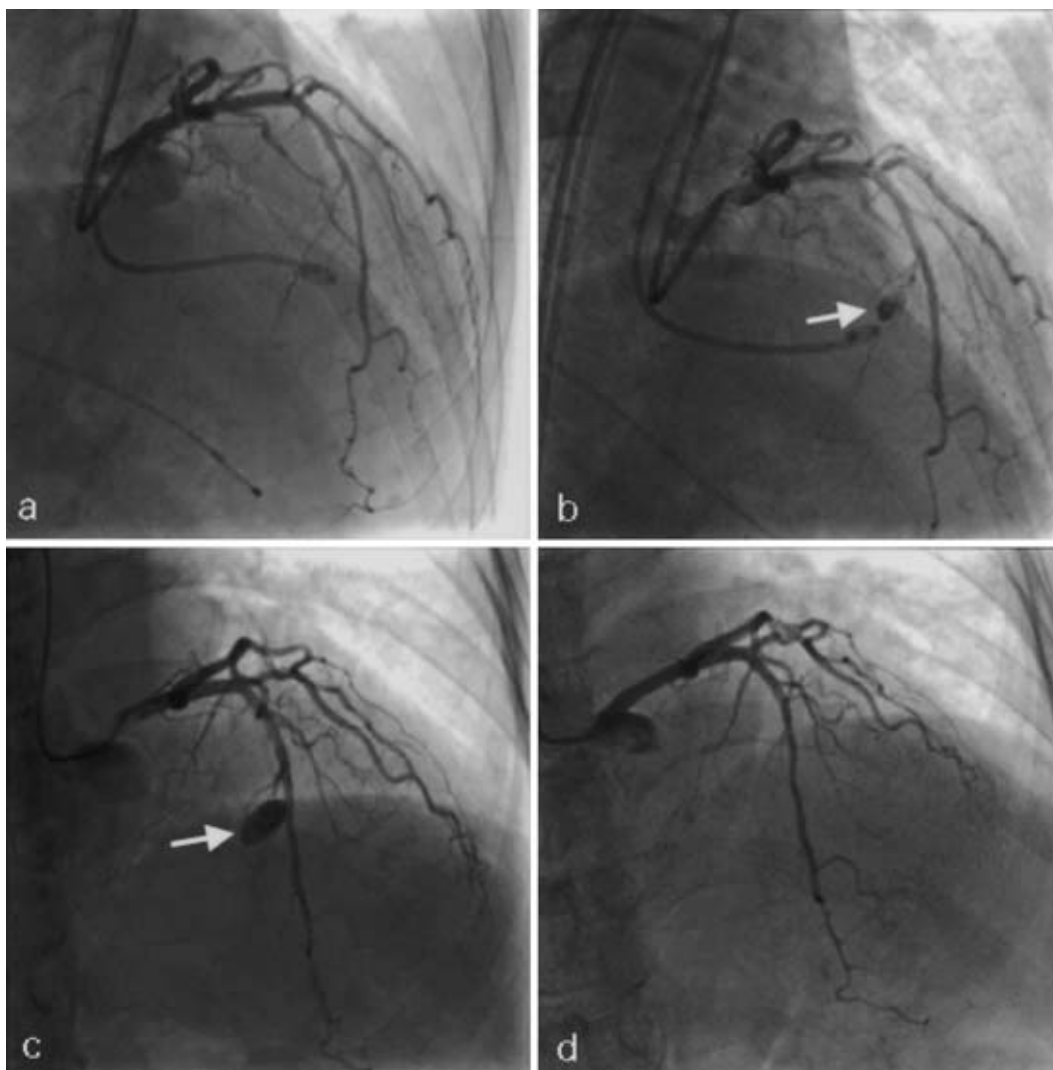
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A 73-year-old woman presented with transitional syncope that occurred while she was taking a bath. Echocardiography showed asymmetric septal hypertrophy and left ventricular outflow tract pressure gradient (LVOTPG) of 180 mmHg, suggesting hypertrophic obstructive cardiomyopathy-related syncope. LVOTPG was refractory to medications including  $\beta$ -blockers, sodium channel blockers and calcium antagonists. Therefore, percutaneous transluminal septal myocardial ablation (PTSMA) was performed. Initial coronary angiography (CAG) showed no significant irregularities (Fig. 1a). After the infusion of 2 ml of 99.5% ethanol at a rate of 0.5 ml/min to the second septal branch, CAG revealed that the branch was not occluded completely. Then we tried to do an additional ablation, and a balloon catheter was inserted into the branch again. To confirm whether an inflated balloon catheter was wedged in the septal branch, we injected contrast medium into it through this catheter. An aneurysmal formation was observed in the branch. Therefore, we discontinued the ablation. CAG also showed the same formation, in which the pooling of contrast medium disappeared for a few seconds (Fig. 1b, arrow). Follow-up CAG at 20 days post-PTSMA revealed enlargement of the aneurysmal formation (Fig. 1c, arrow), although changes in LVOTPG were not observed. Subsequent CAG at 9-months post-PTSMA showed spontaneous disappearance of the aneurysmal formation (Fig. 1d). An aneurysmal formation of the septal branch is a rare complication of PTSMA.

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**Figure 1.** Coronary angiography (CAG) before (a) and after percutaneous septal myocardial ablation (PTSMA) (b). An aneurysmal formation was observed in the septal branch after PTSMA (b, arrow). CAG at 20 days post-PTSMA revealed enlargement of the aneurysmal formation (c, arrow), which was disappeared spontaneously at 9 months after PTSMA (d).