



Letter to the Editor

Contrast filled bulge inside the aortic root

A 58 year old male patient presented with shortness of breath and chest discomfort since 6 h. Electrocardiogram was suggestive of anterior wall myocardial infarction. He underwent coronary angiography. Left coronary angiography revealed 90% stenosis of mid left anterior descending artery and 90% stenosis of proximal obtuse marginal artery. Angiography catheter (Tiger)5 French size was hooked at right coronary artery ostium. As the contrast was injected through the catheter, sudden bulge filled with contrast was observed. (Fig. 1, clip1,2) Right coronary artery was seen to have 90% tubular stenosis proximally with dissection. Patient was scheduled for emergency coronary artery bypass grafting surgery. Intraoperative transesophageal echocardiography was performed which showed dissecting flap from right aortic sinus. However it was not extending to ascending aorta. Saphenous venous grafts were anastomised to the culprit vessels.

Iatrogenic aortic dissection during percutaneous coronary interventions has been reported in 0.02% to 0.07% of cases.¹ Common site of dissection was aortic root and ascending aorta but rarely it may spread to aortic arch and descending aorta.² In an analysis of 86 such cases, iatrogenic aortic dissections was observed during interventions of coronary artery most commonly RCA followed by LAD, LCx, LMCA and obtuse marginal branch.² The probable causes of dissection reported were catheter trauma, balloon inflation, contrast injection and wire trauma. Catheter sizes used in these cases were 6 Fr or more and belonged to

Amplatz left or JR type whereas in the present case, 5 Fr catheter size (Tiger type) was used. Treatment options offered were stenting as sole treatment for aortic dissection (53.5%), coronary artery bypass grafting, aortic repair or both followed by stenting (10.5%), aortic repair with CABG (19.8%), CABG alone (3.5%) and conservative approach (22.1%).

In the present case, we believe aortic root laceration may be caused by the angiography catheter and forceful injection of contrast may have lifted aortic dissecting flap showing intraaortic bulge filled with contrast. Considering the dissection limited to aortic root, no surgical repair or stenting except coronary bypass grafting alone was done. Dunning et al.¹ suggested surgical intervention in patients with a dissection more than 4 cm into the ascending aorta. Though the patients can be successfully treated conservatively, or nonsurgically (stenting), it is the hemodynamic stability and dissection extension should guide the management.

Conflict of interest

No conflict of interest.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.ihj.2017.06.009>.

References

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Received 11 January 2017

Available online 15 June 2017

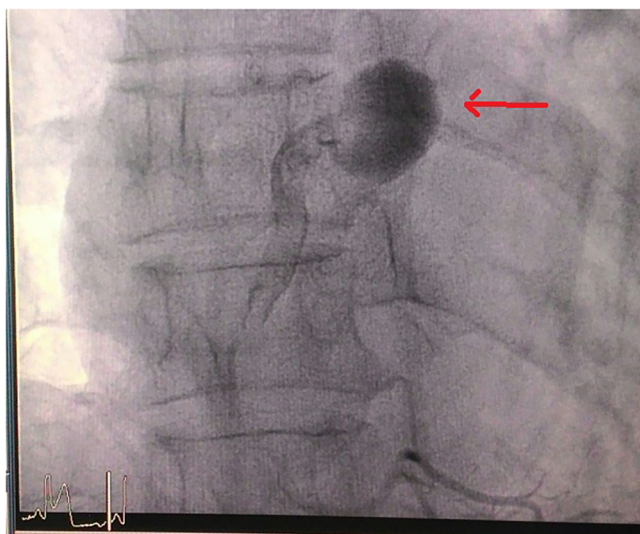


Fig. 1. Contrast filled bulge seen even after the removal of angiography catheter.

<http://dx.doi.org/10.1016/j.ihj.2017.06.009>

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