## Treatment of Severe Aortic Stenosis Accompanied with Vascular Ring in a 70-Year-Old Patient - Case Report

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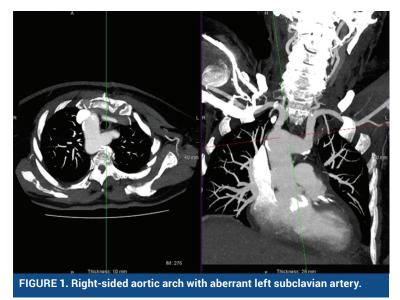
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**Aim:** To present a therapeutic modality of a 70-year-old patient with double-vessel coronary disease, along with associated severe aortic stenosis and vascular ring.

Case report: Patient admitted for elective coronary angiography because of preoperative preparation due to surgical treatment of accidentally detected severe aortic stenosis (peak aortic valve velocity of 4.4 m/sec, peak gradient of 80 mmHg, mean gradient of 47 mmHg, aortic valve area of 0.8 cm² (continuity equation using velocity time integral (VTI)), with preserved left ventricular ejection fraction. Double-vessel coronary disease was verified by coronary angiography and percutaneous coronary intervention (PCI) of left anterior descending with drug eluting stent (DES) implantation and right coronary artery with DES implantation was done. Echocardiography verified the orderly dimensions of the

visible part of the aorta, while computed tomography demonstrated the presence of anatomical variation in the right-sided aortic arch, with slight compression of the esophagus by the left subclavian (**Figure 1**). Surgical revascularization treatment was indicated, with aortic valve replacement through V-type mini sternotomy. During the operation and in the postoperative course, there was no need for blood and blood products. Throughout the procedure, the patient was hemodynamically stable, without catecholamine support. On the second postoperative day, the patient was transferred to post-intensive care, while on the fifth postoperative day, the patient was discharged home.

**Conclusion:** Mini sternotomy represents an optimal therapeutic modality for severe valvular heart disease<sup>1,2</sup>, even when it is accompanied with an anomalous vascular structure.



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