

Acute occlusion of an anomalous left circumflex artery after aortic valve replacement

Branislav Bezák, Panagiotis Artemiou, Vladan Hudec, Ivo Gašparovič, Michal Hulman

Medical Faculty of the Comenius University, Clinic of Cardiac Surgery, National Institute of Cardiovascular Diseases, Bratislava, Slovakia

INFORMACE O ČLÁNKU

Historie článku:

Vložen do systému: 10. 2. 2022

Přijat: 17. 2. 2022

Dostupný online: 21. 11. 2022

Klúčové slova: anomálna lava circumflex artery, náhrada aortálnej chlopče

Keywords: anomalous left circumflex artery, aortic valve replacement

A 55-year-old male patient with an anomalous left circumflex artery (LCX) from the right sinus of Valsalva underwent aortic valve replacement (AVR) with a St. Jude regent 21mm valve (Abbot Inc, St Paul, MN) and tricuspid valve annuloplasty with a CE 32 mm ring (Edwards Life-

sciences, Irvine, CA) (Fig. 1A, 1B). Postoperative coronary angiography showed an acute occluded LCX (Fig. 1C). The patient underwent successful percutaneous coronary intervention of the occluded LCX (Fig. 1D).

Anomalous LCX from the right sinus of Valsalva occurs infrequently; however, it can create a challenge during AVR. Technical considerations during surgery (avoid oversizing, sutureless valves, prophylactic coronary artery bypass grafting) reduce the risk of injury or compression of the anomalous LCX and prompt postoperative diagnostic coronary angiography in case of hemodynamic ischemia and stenting of the occluded artery could be the first line treatment in these patients.¹⁻³ A written informed consent was obtained from the patient to present these images.

Conflict of interest and funding

The authors declare no conflict of interest and no funding.

References

1. Cerillo AG, Haxhiademi D, Berti S, Solinas M. Sutureless aortic valve replacement: An easy and safe approach for patients with anomalous left circumflex coronary artery. *J Heart Valve Dis* 2016;25:145–148.
2. Yokoyama S, Takagi K, Mori R, Aoyagi S. Aortic valve replacement in patients with an anomalous left circumflex artery: Technical considerations. *J Card Surg* 2012;27:174–177.
3. Baldonado JJR, Greason KL, Crestanello JA, et al. Surgical aortic valve replacement in the setting of anomalous circumflex coronary artery. *Ann Thorac Surg* 2022;113:563–568.

Fig. 1 – (A) Coronary angiography showing the anomalous left circumflex artery from the right sinus of Valsalva. **(B)** Cardiac computed tomography showing the anomalous left circumflex artery from the right sinus of Valsalva. **(C)** Postoperative coronary angiography showing the acute occluded left circumflex artery. **(D)** Postoperative coronary angiography after successful percutaneous coronary intervention of the occluded left circumflex artery.

Address: MUDr. Panagiotis Artemiou, PhD., Medical Faculty of the Comenius University, Clinic of Cardiac Surgery, National Institute of Cardiovascular Diseases, Pod Krásnou hôrkou 1, 831 01 Bratislava, Slovakia, e-mail: panayiotisartemiou@yahoo.com
DOI: 10.33678/cor.2022.009