Rescue operation after ascending thoracic endovascular aortic repair in a patient with thrombosis of the left main coronary ostium

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Abstract

Transfemoral stent graft implantation in the ascending aorta has been performed in patients with aortic abnormalities and particularly in the case of an existing symptomatic thrombus. We report on a 68-year old male patient who presented to our clinic with angina-pectoris-like chest pain after having been treated with an aortic stent graft. A computed tomography scan revealed a thrombus in the left main stem that could be successfully removed. The aortic stent graft was removed and the supracoronary ascending aorta replaced.

Keywords: Occlusion • Coronary ostium • Thrombus • Ascending aorta • Stent

INTRODUCTION

Transfemoral stent implantation [1] as a minimally invasive procedure is becoming an alternative to conventional operations. To our knowledge, there have been no reports on a case of an occlusion of the left coronary ostium with thrombotic material in the long term after such a procedure.

CASE PRESENTATION

A 68-year old male patient had undergone a stent graft implantation of the ascending aorta (Fig. 1) due to an appositional thrombus [2] of the ascending aorta located 23 mm above the aortic valve and 11 mm above the coronary ostium after repeated bilateral embolic occlusion of the popliteal artery. The exclusion of the initial aortic thrombus in the other treating hospital had been successful.

Nevertheless, 20 months later, the patient was treated in the same hospital for severe stroke with temporary hemiparesis, after which he was referred to our cardiothoracic unit with severe angina pectoris symptoms. Preoperative computed tomography scan revealed a long thrombotic structure occluding the left main stem and the circumflex artery.

Emergency thoracotomy was performed and extracorporeal circulation was established via cannulation of the right subclavian...
artery. The aorta was crossclamped beneath the truncus brachiocephalicus, and after cardiac fibrillation, Bretschneider cardioplegic solution was applied directly to the coronary ostia. The supracoronary ascending aorta, including the stent graft, had to be replaced due to its thrombogenicity. (Fig. 2) It could successfully be replaced with a 26-mm Dacron vascular prosthesis, and the thrombotic material occluding the left coronary ostium could be removed successfully.

After a regular postoperative course the patient was discharged 10 days later without any neurological deficits.

**CONCLUSION**

In the literature, there is no consensus on how to treat a floating aortic thrombus. This report shows that endovascular treatment should be reconsidered as an alternative therapy, particularly in cases where the thrombus is close to the coronary ostium. In similar cases, we suggest an open surgical removal as the therapy of choice, which has also been proven as a safe procedure in the past [3].

**Conflict of interest:** none declared.

**REFERENCES**

