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Mutluer, Ferit Onur; Çeliker, Alpay
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Comment on Ligature of the Left Main Coronary Artery after Surgery in Kawasaki Disease: Case Report

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Dear editor,

Coronary involvement becomes evident in approximately 1 in 20 patients with Kawasaki disease (KD). Coronary aneurysms, dissection, thrombi and extensive calcifications are major findings in these patients^[1]. Although angiographic remission of the coronary complications is evident with appropriate treatment, segments with healing vasculitis or normal-looking segments also demonstrated pathological alterations in previous studies^[2]. Aside from coronary artery bypass surgery, which has been the treatment of choice for thrombotic coronary complications of KD for a long time, several interventional treatments, including percutaneous coronary intervention (PCI) with regular or percutaneous polytetrafluoroethylene (PTFE)-covered stents, coil implantation, percutaneous transluminal coronary revascularization (PTCR) with infusion of thrombolytic agents directly into the infarct-related artery, percutaneous coronary rotational ablation (PTCRA), were previously used successfully in these patients^[3].

As Barca et al.^[4] wonderfully presented in their report, outcomes of coronary techniques originally approved for vessels with atherosclerotic disease in this special population with underlying vasculitis remain as a question to be answered. Their report is significant in demonstrating unfavourable long-term outcomes related with an initially successful implantation of a PTFE-covered stent as well as management of the stent-thrombosis with surgical ligation of protected left main coronary artery (LMCA) ostium as a means of protecting the vessel from future thrombotic events and competition. They presented this as the first case report of LMCA occlusion in patients with KD. We would like to draw attention to our report published the same month, describing a patient with KD who underwent coronary artery bypass surgery due to prior myocardial infarction at the age of 9, but presented with ischemia-related ventricular tachycardia at the age of 16 with a partially large LMCA aneurysm. We successfully occluded the LMCA aneurysm with an Amplatzer muscular ventricular septal occluder. The distal vascular bed was protected by patent bypass grafts^[5]. These two reports failed to cite each other because were published the very same month.

These two reports are extremely important to demonstrate that even if coronary complications are appropriately managed with surgical or interventional techniques, patients with KD are still prone to complications related with the previously treated segments or the remaining vasculature. If the lesion is an ostial aneurysm, surgical ligation or percutaneous occlusion of the aneurysm with devices following protection of the vascular bed with coronary artery bypass surgery seems safe and feasible as a salvation therapy.

Ferit Onur Mutluer¹, MD

 <https://orcid.org/0000-0001-9114-9529>

¹Department of Cardiology, Erasmus University Medical Center, Netherlands.

Alpay Çeliker², MD

²Department of Pediatric Cardiology, VKV Amerikan Hospital, Istanbul, Turkey.

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