

Full endarterectomy of Right coronary artery (RCA) and all branches

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Abstract

This case is a unique 49 years old male with clear images of diagnosis angiography, operation field and post operation findings to show total right coronary artery plaque and how full endarterectomy can help patient.

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Total endarterectomy of RCA

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Coronary endarterectomy (CEA) was proposed as a treatment strategy for coronary diseases in the mid-20th century; however, as a result of being complicated and unpredictable, it was not welcomed by the physicians. The majority of surgeons do not use the procedure for cases with diffuse or complete right coronary artery lesions. (1)

CEA is a sophisticated technique which should be applied only by experienced surgeons, and in patients with diffuse coronary artery diseases, in whom other options have not been effective. (2)

A 49-year-old male was admitted to the department with chest pain and high creatinine. The patient underwent angiography; the results showed total occlusion of RCA and significant stenosis of LAD and LCX. (Fig 1A) Upon one session of dialysis, CABG was conducted for the patients. Moreover, due to the diffuse calcification of the RCA and PDA, the total CEA of RCA and its branches was conducted by a 5-mm incision on PDA. (Fig 1B) One month later, the general condition of the patient was good, and the CT-Angio showed the opening of RCA and its branches. . (Fig 1C)

Key clinical message

Full endarterectomy of right coronary artery (RCA) is an effective treatment of total occlusion of RCA but the technique for full extraction of plaque is more important.

Conflict of interest

The authors declare no conflict of interest.

Author contributions

DD and FS: contributed to acquisition of data, drafting the manuscript, final revision of the manuscript, and participated sufficiently in the work. SA, YT and AYG: contributed to acquisition of data, drafting the manuscript, and participated sufficiently in the work.

Ethical approval

The report was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards. Also, it is in accordance with institutional policies in this subject. Informed Consent: Written informed consent has been obtained from the patient.

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Availability of data and material

The datasets generated during the current report are available from the corresponding author on reasonable request.

References:

Erdil N, Cetin L, Kucuker S, Demirkilic U, Sener E, Tatar H. Closed endarterectomy for diffuse right coronary artery disease: early results with angiographic controls. *J Card Surg* . 2002; 17(4):261-266.

Papakonstantinou NA, Baikoussis NG, Apostolakis E. Coronary endarterectomy: new flavors from old recipes. *J Cardiol* . 2014; 63(6):397-401.

Figure legend: Fig 1: Full endarterectomy of right coronary artery (RCA). 1A: Total occlusion of RCA in angiography. 1B: Image of long and total plaque of RCA and it's all branches. 1C: CT angiography view of patent RCA and other grafts after one month after surgery



