



Angina Associated with Dynamic Right Ventricular Compression of Anomalous Left Main Coronary Artery

Szolnoky J[#], Eichinger S^{**} and Eichinger WB

Department of Cardiac Surgery, Hospital Bogenhausen, Germany

[#]Both the authors contributed equally

Clinical Image

Left main coronary artery arising from the right anterior sinus with anomalous course may predispose to myocardial ischemia, infarction or sudden death. This coronary anomaly can be divided in various subtypes, with one of them being a very rare anatomic variation where the left main coronary artery is located anterior to the right ventricular outflow tract [1].

We report a 60-year-old patient, who was admitted with stable exercise induced angina refracter to standard medication. Diagnostic coronary angiography revealed a coronary anomaly with origin of the left main coronary artery from the right coronary sinus and anterior course proximal to the pulmonary trunk with severe dynamic compression of the vessel (Figure 1). The patient was referred to bypass surgery. Surgery was performed with extracorporeal circulation. During cardioplegic arrest the aortic and pulmonary root was examined, and a right ventricular intramuscular course of the anomalous left main coronary proximal to the pulmonary trunk was found. The vessel was carefully dissected from the ventricle muscle to dissolve its dynamic muscular compression (Figure 2). Four 5.0 sutures were used to fixate the myocardiac muscle tissue in order to avoid recurring compression of the left main coronary artery.

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*Correspondence:

Simone Eichinger, Department of Cardiac Surgery, Hospital Bogenhausen, Klinikum Bogenhausen, Englschalkingerstrasse 77, 81925 Munich, Germany, Tel: +498992702631; Fax: +498992702605; E-mail: simone.eichinger@klinikum-muenchen.de

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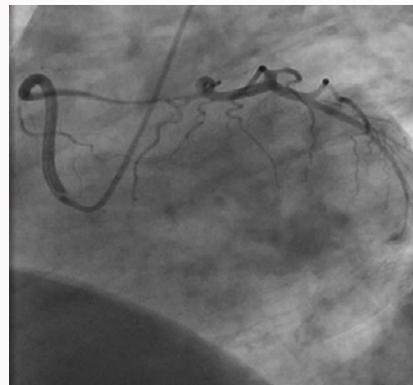


Figure 1: Diagnostic coronary angiography.

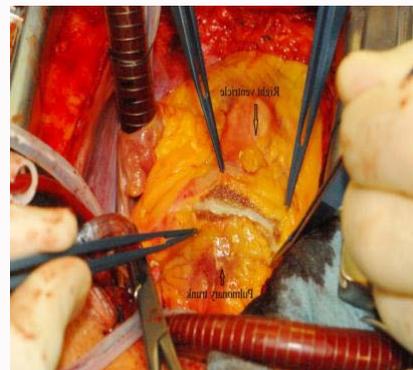


Figure 2: Dynamic muscular compression.



Figure 3: Computed Tomography showed no residual systolic compression of the left main coronary artery.

On the fifth postoperative day a 64-slice computed tomography showed no residual systolic compression of the left main coronary artery (Figure 3). After uneventful postoperative course the patient was discharged one week postsurgically.

References

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