



## Giant Coronary Artery Aneurysm: A Case Report

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### Abstract

**Background:** Coronary artery aneurysm is a rare clinical finding in patients undergoing coronary angiography. We describe the case of a patient who received a diagnosis of isolated giant right coronary artery aneurysm.

**Case Report:** we present an uncommon case of a 60-year-old man with history of previous cardiac operation for aortic aneurysm, with referred persistent asthenia, decreased exercise tolerance and lower extremity edema. The echocardiography showed moderate tricuspid regurgitation and a not well-defined mass exerting initial compression on the right sections of the heart. Computed tomography confirmed the finding of a contrasted mass, initially referred to a proximal aortic pseudoaneurysm. The coronary angiography made clear instead the presence of a giant right coronary aneurysm with maximum diameter of 6 cm, confirmed also with the support of cardiac magnetic resonance. The patient underwent cardiac operation with surgical exclusion of the aneurysm and right coronary bypass. There were no clinical complications during the hospitalization and the patient has been discharged home after 7 days from the operation.

**Conclusion:** Giant coronary artery aneurysm can be successfully managed with a surgical treatment, as supported by the scientific literature. An accurate diagnostic process is of primary importance for the differential diagnosis and for the definition of the ideal treatment strategy.

### Introduction

Coronary Artery Aneurysms (CAAs) is a rare clinical finding in patients undergoing coronary angiography with a reported prevalence of 1.5% to 5% [1]. However, a coronary artery with a diameter more than 2 cm is termed as "giant aneurysm" and only a few cases have been described in the literature.

We describe the case of a patient who received a diagnosis of isolated giant right coronary artery aneurysm and has subsequently treated with surgery.

### Case Presentation

We present an uncommon case of a 60-year-old man with history of previous cardiac operation for aortic aneurysm, with referred persistent asthenia, decreased exercise tolerance and lower extremity edema. The echocardiography showed moderate tricuspid regurgitation and a not well-defined mass exerting initial compression on the right sections of the heart. Computed Tomography (CT) confirmed the finding of a contrasted mass, initially referred to a proximal aortic pseudoaneurysm.

The patient underwent angiographic study, to fully understand the clinical situation, that made clear instead the presence of a giant right coronary aneurysm with maximum diameter of 6 cm, confirmed also with the support of a subsequently cardiac Magnetic Resonance (MR).

The patient underwent cardiac operation with surgical exclusion of the aneurysm and right coronary bypass with autologous great saphenous vein. There were no clinical complications during the hospitalization and the patient has been discharged home after 7 days from the operation. Long-term follow-up showed good clinical status of the patient and no abnormalities.

### Conclusions

Giant coronary artery aneurysm can be successfully managed with a surgical treatment, as supported by the scientific literature [2].

Even if it is an occasional finding, it is important to fully understand the clinical and anatomical

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situation.

An accurate diagnostic process is of primary importance for the differential diagnosis and for the definition of the ideal treatment strategy.

CT is the fastest and least invasive exam, but occasionally it is not the most suitable examination. MR is very helpful but is also a very expensive examination and it is not present in all the hospital.

So, we must not forget the old diagnostic methods, such as angiography, which, in some situations, gives a clearer picture than the new technologies.

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