

# An Unusual Case of STEMI from Extrinsic Obstruction



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## Abstract

We present a patient with symptomatic multi-vessel ischemic heart disease requiring surgical intervention. The saphenous veins and radial arteries were unsuitable conduits and the ascending aorta was near porcelain. Six off-pump coronary artery bypass (OP-CAB) were performed utilizing five grafts derived from the basilic-cephalic veins and one from the internal mammary artery. Coronary angiography one year later showed complete patency of all the grafts.

## Background

Although uncommon, cardiac fibromas can have dangerous consequences, usually arise in the ventricular muscle and may become quite large. Heart failure is the most common symptom, due to obstruction of blood flow or interference with alvular function and conduction disturbances. Here we present a rare case of acute occlusion of coronary arteries due to an inter-ventricular cardiac fibroma resulting in an acute ST elevation myocardial infarction.

## Case Report

A 17 year old male with a past medical history of a biopsy diagnosed cardiac fibroma in the inter-ventricular septum (5cm X 9cm) who presented to the emergency department after a witnessed cardiac arrest with Ventricular fibrillation. He was resuscitated and achieved return of spontaneous circulation after 30 minutes. Initial electrocardiogram showed ST-elevations in leads V1 and V2 with reciprocal depressions. His troponins were elevated to 6.2 and he was thought to have an ST elevation myocardial infarction. He was taken to catheterization laboratory and coronary angiography showed occluded left anterior descending artery, ramus intermediacy and obtuse marginal that was thought to be secondary to compressive effects from fibroma. This was not amenable to percutaneous coronary intervention or surgical intervention. Unfortunately patient developed significant left ventricular systolic dysfunction with an ejection fraction of 20-30% and he was referred for a cardiac transplant.

## Discussion

Cardiac fibromas are nevertheless the second most common pediatric cardiac tumor and can also occur in adults [1-3]. Histologically, these are similar to fibromas arising elsewhere in the body. Fibromas usually arise in the ventricular muscle and may become quite large. Unlike rhabdomyomas, fibromas do not regress spontaneously. They arise approximately five times more frequently in the left ventricle than the right ventricle [1]. Myocardial dysfunction and resultant heart failure is the most common symptom, due to obstruction of blood flow or interference with valvular function. Conduction disturbances can also occur. Echocardiography, supplemented with computed tomography (CT) scans or MRI confirms the diagnosis. Symptomatic tumors should be resected. Complete resection of very large tumors may require cardiac transplantation.

## References

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