**Huge coronary aneurysm in morbid obese man with exertional dyspnea and chest pain**

Short title: Coronary aneurysm

Ahmadali Amirghofran (1) ,Reza Golchin Vafa (2) ,Javad Kojuri (2,3,4)

1) Cardiac Surgery Department, Shiraz University of Medical Sciences, Shiraz, Iran

2) Professor Kojuri Cardiology Clinic, Shiraz, Iran

3) Cardiology Department, Shiraz University of Medical Sciences, Shiraz, Iran

4) Clinical Education Research Center, Shiraz University of Medical Sciences

Corresponding Author: Javad Kojuri MD, MS. Cardiologist, Interventionist, Professor, Shiraz University of Medical Sciences, Head of Cardiology Department, Head of Shiraz Education Center

Address: Professor Kojuri Clinic, Niayesh St. Niayesh Medical Complex, Shiraz, Iran. Tel: 00987136540082, Email: Kojurij@yahoo.com, Info@kojuriclinic.com

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**Abstract**

**Background:**

Giant coronary artery aneurysm (GCAA) is a rare disease with an incidence of 0.02% in the general population. GCAA is defined as when the diameter of the coronary artery is more than 4 times the adjacent part or more than 8mm. There are several causes for GCAA, with atherosclerosis being the most common. Patients with giant coronary artery aneurysms can be asymptomatic or develop chest pain, dyspnea, and palpitations. Complications of GCCA include myocardial infarction, thrombosis, and sudden death. So early treatment is necessary to prevent mortality. There is no standard surgical approach for a giant coronary artery aneurysm.

**Case Report**:

**A** 64-year-old man known case of hypertension, opium addiction, morbid obesity, with a weight of 151 Kg and BMI of 46, and benign prostate hyperplasia presented with a giant coronary aneurysm in coronary angiography. The patient underwent cardiac surgery. 42 mm coronary aneurysm was detected. The aneurysm had many orifices that open to the left main coronary artery, left circumflex artery, LAD, the diagonal branch of LAD, and the septal branch of LAD. Aneurysmectomy and Coronary artery bypass graft were done for the patient successfully.

**Conclusions:**

A giant coronary artery aneurysm is a rare disease. Patients with giant coronary artery aneurysms may experience sudden death due to myocardial infarction and other cardiovascular complications due to ischemia. There is no standard surgical approach for a giant coronary artery aneurysm due to rarity. Further studies need to focus on standardized surgical management of patients with giant coronary artery aneurysms.

**Key words:** giant coronary artery aneurysm, aneurysmectomy