



Giant aneurysm of the left main coronary artery in a young man

Juan Guzman Olea, Gabriel Guzman Olea

Interventional Cardiology Department, Clinica Cardiologica y Torre Medica Bioscan Puebla-Tlaxcala Mexico, Jardines de San Manuel, Puebla, Mexico

A 25-year-old male, without cardiovascular risk factors or cardiovascular history, was referred to our hospital for recurrent angina. Thirty days before he presented the signs of a clinical myocardial infarction without receiving medical assistance. An electrocardiogram showed a QS deflections and subepicardial ischemia in leads V1-V4 and qR deflection with subepicardial ischemia in leads DI-AVL (Fig. 1). Coronary angiography was performed that revealed a giant aneurysm of the left main coronary artery (Fig. 2A, arrow, Video 1), left anterior descending coronary artery with proximal lesion of 85% involving the origin of the 1st. diagonal branch Medina 0-1-1 (Fig. 2B, arrow, Video 2), codominant and ectatic circumflex and normal right coronary artery (Fig. 2C). Based on the findings and considering the age of the patient, we decided that myocardial viability should be evaluated and the patient should undergo surgical treatment.

The incidence of true coronary artery aneurysms is <1%. The right coronary artery is usually the most affected artery (40%) followed by the left anterior descending (32%), and the left main being the least affected artery (3.5%).(1) The presence of coronary aneurysm has been associated with poor long-term outcomes irrespective of the presence of concomitant atherosclerotic coronary artery disease. Clinical presentations range from incidental finding on cardiac imaging to acute coronary syndrome like this case (2, 3). Treatment options include medical therapy, surgical excision of aneurysm, coronary bypass surgery and percutaneous coronary interventions. However, the management of these patients poses a clinical dilemma to the physicians, due to the lack of evidence from randomized controlled trials or societal guideline recommendations (2, 3).

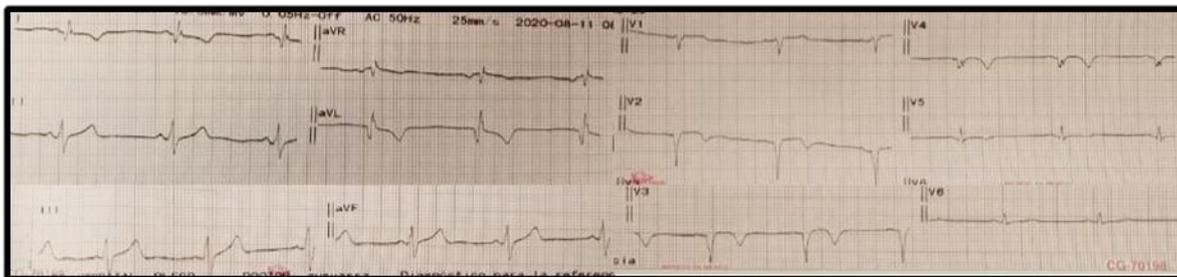


Figure 1. An electrocardiogram showing QS deflections and subepicardial ischemia in leads V1-V4 and qR deflection with subepicardial ischemia in leads DI-AVL

Address for Correspondence: Juan Guzman Olea, Cardiologia Intervencionista, Clinica Cardiologica Rio Jamapa 5302 Jardines de San Manuel, Puebla, Mexico, Phone: +52 (551)4831640, +52(222)2275771

Email: dr.jguzmanolea@gmail.com

Received: 23.11.2020 **Revised:** 03.12.2020 **Accepted:** 03.12.2020

Copyright ©2020 Heart, Vessels and Transplantation

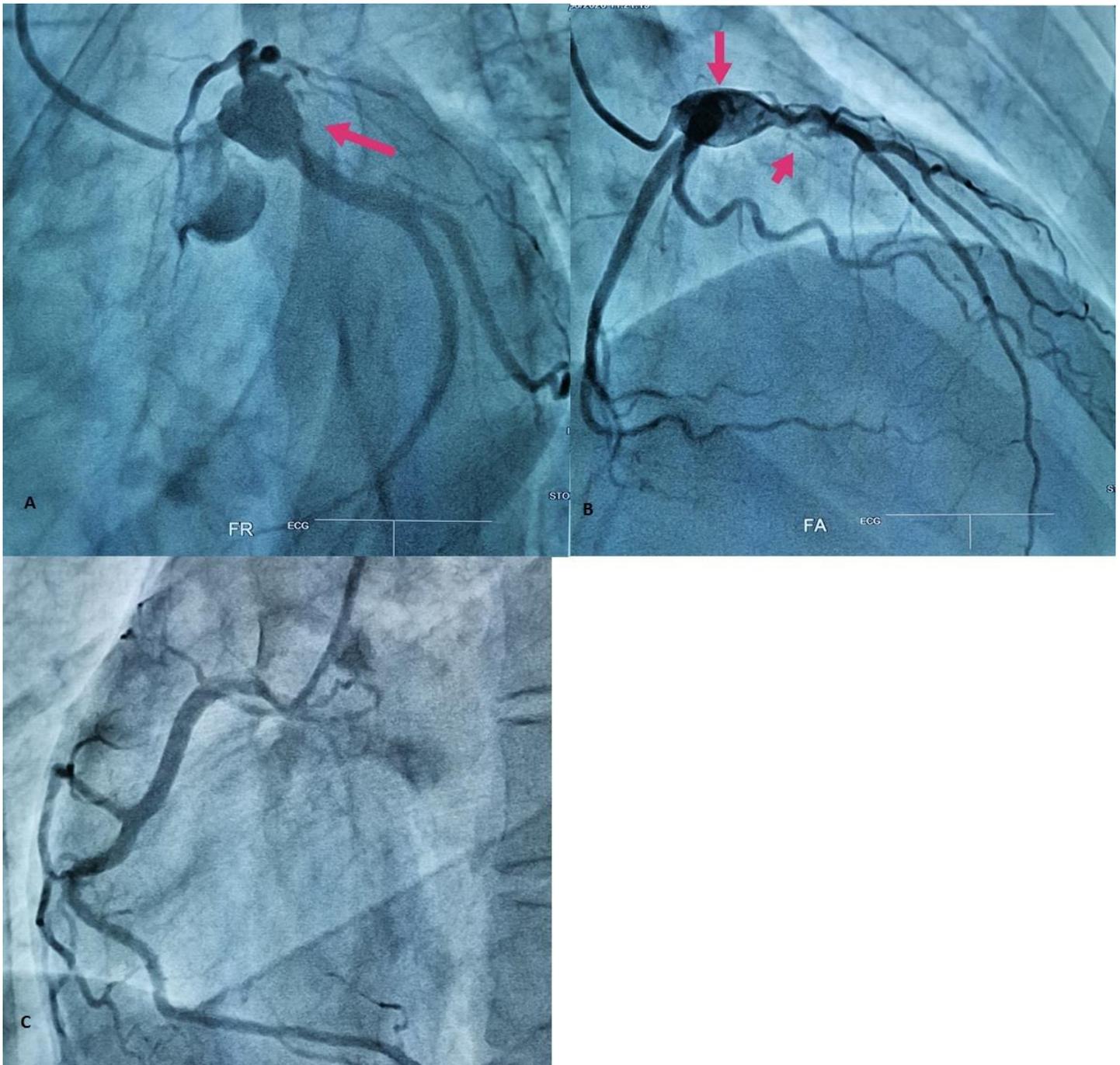


Figure 2. Coronary angiography views of a giant aneurysm of the left main coronary artery (A, arrow, Video 1- see videos at www.hvt-journal.com), left anterior descending coronary artery with proximal lesion of 85% involving the origin of the 1st. diagonal branch Medina 0-1-1 (B, arrow), codominant and ectatic circumflex and normal right coronary artery (C).

Video 1, 2. Coronary angiography views of a giant aneurysm of the left main coronary artery

Peer-review: Internal and External

Conflict of interest: None to declare

Authorship: J.G.O., G.G.O. are equally contributed to management of case and preparation of article

Acknowledgement and funding: None to declare

2. Kawsara A, Nunez Gil IJ, Alqahtani F, Moreland J, Rihal CS, Alkhouli M. Management of coronary artery aneurysms. *JACC Cardiovasc Interv* 2018; 11: 1211-23.

3. Cohen P, O'Gara PT. Coronary artery aneurysms: a review of the natural history, pathophysiology, and management. *Cardiol Rev* 2008; 16: 301-4.

References

1. Manginas A, Cokkinos DV. Coronary artery ectasias: imaging, functional assessment and clinical implications. *Eur Heart J* 2006; 27: 1026-31.



Kanlikavak, Eskisehir, Turkey. Bulent Gorenek, Eskisehir, Turkey