

Abstract No. **44**

Category: **Non Invasive Imaging**

Title: **Utility of Cardiac Magnetic Resonance in Patients With Diagnosis of Myocardial Infarction With Non-obstructive Coronary Arteries**

Primary Author: **Cristhian F Ramirez Ramos**

**Abstract:**

Background: Myocardial infarction with non-obstructive coronary arteries (MINOCA) accounts for 25% off all acute coronary syndromes and represents a diagnostical challenge due to its difficult etiological evaluation through conventional methods which hinders both the initial approach and the individualized treatment. Given the increasing use of cardiac magnetic resonance imaging in diagnosis and treatment of cardiomyopathies, a select group of patients were examined to evaluate the cardiac magnetic resonance diagnostic capabilities.

Methods: Retrospective, descriptive study of 91 patients that fulfilled the MINOCA case definition criteria in a magnetic resonance imaging capable facility, in a two-year period between March 2016 and March 2018

Results: The average age of the population was 51 years and 65% were female. At admission 5% presented subacute evolution with heart failure and 6.6% also presented syncope. The main associated comorbidities were hypertension (34.1%), smoking (24.2%) and dyslipidemia (18.7%). The most important electrocardiographic findings were changes of subepicardial ischaemia in 12.1%, necrosis 11%, and subepicardial lesion 7.7%. The mean troponin on admission was 22.7 ng / ml and LDL cholesterol 114.7 mg / dl. The mean left ventricular ejection fraction of the population was 53%. During the hospitalization, 4.4% had non-sustained ventricular tachycardia and 2.2% required ventilatory support. Cardiac magnetic resonance diagnosed 83.5% of the MINOCA cases, from which 51.6% resulted in myocarditis, 8.8% in stress cardiomyopathy (Takotsubo syndrome) and 7.6% in myocardial infarction due to plaque rupture and recanalization (Table 1). The pharmacological treatment was modified with regard to aspirin in 58.2%, a P2Y12 inhibitor in 84.6%, beta-blockers in 45% and statins in 29.7% of the patients in whom a cardiac magnetic resonance was performed (Table 2).

Conclusions: Cardiac magnetic resonance contributed to the accurate diagnosis of 83.5% of MINOCA cases, proving the test relevance in this select group of patients in terms of diagnosis, treatment and prognostic evaluation.