



## Non Invasive Imaging (Echocardiography, Nuclear, PET, MR and CT)

**REST MYOCARDIAL PERFUSION IMAGING IN THE MANAGEMENT OF CHEST PAIN: A FEASIBLE AND SECURE PROTOCOL IN A BRAZILIAN EMERGENCY DEPARTMENT**

Poster Contributions  
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**Background:** Rest myocardial perfusion imaging (RMPI) is considered a valuable tool to rule out acute coronary syndrome (ACS) in non-high-risk chest pain patients and it is established in many urgent care centers in developed countries. Our purpose is to evaluate RMPI's ability to provide prognostic information in a Brazilian emergency department (ED).

**Methods:** Retrospective analysis from a prospective data bank of chest pain in a Brazilian ED. We included patients with ongoing chest pain or up to 6 hours after this symptom. Patients with positive troponin, previous acute myocardial infarction or ischemic electrocardiogram (including bundle-branch-block) were excluded. Based on the RMPI results we compared patients with normal and abnormal perfusion. Our end point was a composite of death, myocardial infarction and revascularization at 30 days.

**Results:** Between November 2015 and April 2016 we included 116 patients in the data bank, categorized as normal and abnormal RMPI. The prevalence of cardiovascular risk factors was similar between the two groups. Sixteen patients became lost to follow up and were excluded. The negative predictive value of RMPI for the 30-day end point was 100%, and the only characteristics with statistic significant correlation to the end points were age and RMPI (table 1).

**Conclusions:** RMPI is a feasible and secure tool to rule out ACS in non-high risk chest pain patients in Brazilian reality.

Table 1. Thirty-day death, AMI or revascularization adjusted analysis

	30 day End Point – No (n=95)	30 day End Point – Yes (n=5)	p (unadjusted)	p (adjusted)
Age	55,2	67	0,03	0,047
Sex (male)	50,5 (48)	60 (3)	0,69	0,27
Hypertension % (n)	51,6 (49)	60 (3)	0,7	0,47
Diabetes % (n)	26,6 (25)	20 (1)	0,74	0,43
Hypercholesterolemia % (n)	32,6 (31)	40 (2)	0,73	0,88
Smoking % (n)	8,4 (8)	0 (0)	0,49	0,56
Normal RPMI % (n)	89,5 (85)	0 (0)	<0,0001	<0,0001