

## Global Summit on

# Heart Diseases and Therapeutics

October 20-21, 2016 Chicago, USA

## Is it possible to predict future cardiovascular events in patients without coronary artery disease demonstrated?

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A lot of studies have been published that have demonstrated that the patients with a normal myocardial perfusion test with single positron emission tomography (SPECT) belong to the group of low coronary risk, since the incidence of cardiovascular events is less than 10 % at ten years. Endothelial dysfunction is the first alteration known that intervenes in the development of coronary artery disease and it can be evaluated by a perfusion test with SPECT and the cold pressor test (CPT). In a population of low coronary risk we could identify those patients most likely to suffer from cardiovascular events with the cold pressor test. For this reason more than 1000 consecutive patients that had a normal exercise perfusion test with SPECT were admitted in a nuclear medicine centre. The cold pressor test was performed between the third and fifth day after the study SPECT. The cold pressor test was considered positive if a decreased uptake of the radionuclide was observed in the perfusion images obtained during the CPT, which were normal in the respective post-exercise images and negative if no changes were observed in the radiotracer uptake in any of the myocardial perfusion images obtained after the exercise test and the CPT. The average follow-up was  $51 \pm 16$  months having located 85.4% of the population. The events analyzed were: cardiac mortality, non-fatal myocardial infarction and coronary revascularization. In this population of patients without demonstrated ischemic heart disease, the prevalence of a positive cold pressor test was 37,5%. Trough out 119 month follow up we have observed event free survival of 95% and 83% in the group of a negative and positive cold pressor test respectively. In our 10 years of experience we have observed the great utility of the cold pressor test, in a low coronary risk population because with this test we could identify a subgroup of patients with a higher likelihood of suffering from cardiovascular events. On the other hand for patients with a normal SPECT but inadequate exercise test, we suggest to complete the study with the cold pressor test in order to identify patients with intermediate coronary risk. Trough the cold pressor test we have also detected the probability of future cardiovascular even in diabetes patients.

### Biography

Pautasso Enrique José graduated as a Physician from the University of Buenos Aires, Argentina in 1974. In December 1982, he became a Cardiologist and got this degree at the Salvador University in Buenos Aires, Argentina. From 1990 to 2001, he was Chief of the Nuclear Cardiology Service at the Hospital Instituto de Cardiología National Medicine Academy, Argentina. In December 2000, he was named Cardiology Consultant by the Medicine School of the province of Buenos Aires. In 2005, he was President of the Argentine Cardiology Society in the northern suburbs of the city. Finally the University of Buenos Aires granted him Medical Doctor in the year 2009. He has carried out more than 100 scientific researches which were published in national and international magazines. In addition, he has been awarded various science prizes. The last one was in 2011 for the best work on Cardiology; awarded by the National Medicine Academy. During the last 15 years he has worked on cardiovascular disease prevention by means of the Cold Pressor Test.

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