- Hello. My name is Carlos Collet. I'm an interventional cardiologist co-director of the Cardiovascular Centre OLV-Aalst in Belgium.

Importance of this trial

So we have performed a trial where we have included patients with angina, positive exercise tests and an intermediate probability of coronary artery disease. And in those patients, we have studied both the macro or the epicardial circulation and the microcirculation. And the idea was to understand what was the prevalence of coronary microvascular disease in this subset of patients with ischemia.

Patient cohort and study design

So UZ Clear is a single arm study where again, patients had intermediate probability of coronary artery disease and proof of ischemia were included. We systematically assess the epicardial physiology with fractional flow reserve and the microvascular status of those patients with the index of microvascular resistance. So again, there is a single cohort where all patients underwent an invasive functional assessment with both FFR and IMR. The main objective of this study was to determine what was the impact of systematically assessing the microcirculation on the diagnostic performance of noninvasive stress tests.

Key findings

So the key findings of the study are that half were, to be exact 46% of patients with a positive exercise test, an angina, have no coronary artery disease. And when I say no coronary artery disease I'm referring to both the epicardial and the microvascular component from the other half of the 54% of patients that tested positive, around 34% had an issue in the epicardial compartment. This means that the fractional flow reserve was below 0.8 and in about 17 patients, we found that the index of microvascular resistance was higher pointing at the fact that in around one out of five patients the results of the noninvasive stress test, the positive results of the noninvasive stress test are related to a disease in the coronary micro circulation.

Further research required

So we have now determined the prevalence of microvascular disease in the subset of patients with ischemia and angina. The next step of course is to address how this population of patients with microvascular disease can be treated from the medical perspective.

Take-home messages

The take home message of the UZ Clear is that when we have patients in the catheterization laboratory that comes with a positive noninvasive test and we don't find any disease in the epicardial vessels it's mandatory to assess the microcirculation because as shown by the results of this study one out of four patients will have a problem in the microvascular compartment. So the message, the final take home message of this study is assess the coronary microcirculation. when you have evidence of ischemia.