



The Annual Vulnerable Patient Meeting

Daily Report: 3rd day

Reykjavik Iceland, June 28th

The third and final day of the Vulnerable Patient Meeting featured continued discussion of the nature of the atherosclerotic process, and a comprehensive report on the many novel treatment strategies now under development. Dr. Gerard Pasterkamp presented results from the AtheroExpress Study which show a decrease in the amount of lipid in carotid artery specimens obtained in the Netherlands during a 10 year study, which was accompanied by a fall in coronary events.

The observation that thin-cap atheromas (TCFAs) decreased in frequency in the AtheroExpress study contributed to the article entitled “Requiem for the Vulnerable Plaque” which was published in 2015 in the European Heart Journal. An additional article entitled “The Myth of the Vulnerable Plaque” appeared in JACC in 2015.

The VPM addressed these articles directly by scheduling a debate. Dr. Pasterkamp defended the position that “Vulnerable plaque does not exist. Stop wasting your time and our money”. Dr. James Muller defended the position --- “Thirteen years of VPM and the search for the vulnerable plaque – Now we are getting somewhere”.

Dr. Pasterkamp noted the fall in coronary incidence in many countries, and the marked decrease in TCFAs in carotid specimens. Dr. Muller observed that while coronary disease is decreasing and may be changing in some countries, it is rising in many others and remains the leading cause of death worldwide with 7.4 million deaths occurring per year. He noted that coronary imaging studies, as opposed to carotid studies, continue to suggest a prominent role for TCFAs in causation.

Dr. Pasterkamp and Dr. Muller agreed that research on coronary plaques should continue, but the definition of a vulnerable plaque should be broadened beyond TCFA to include erosion sites and other focal coronary lesions that might be amenable to systemic plus local therapy.

Dr Gregg Stone presented an overview of the optimal use of anti-thrombotic therapy for acute coronary syndromes. He described the positive results obtained in studies of bivalirudin for the treatment of myocardial infarction and the use of cangrelor, an intravenous anti-platelet agent.

Dr. Patrick Serruys presented a comprehensive review of studies of the optimal duration of dual antiplatelet therapy after coronary percutaneous interventions (PCI). This decision is based on the trade-off between preventing an ischaemic event (from either the stent or a new culprit lesion) and the risk of bleeding. Ongoing studies will facilitate selection of the optimal anti-thrombotic therapy for individual patients.

The discussion on prevention of new coronary events featured a review of the status of the PCSK9 inhibitors which have shown remarkable safety and efficacy in lowering plasma LDL levels. The field had developed rapidly with the FOURIER, ODYSSEY, SPIRE I and II studies being conducted in more than 70,000 patients. Early results from these outcome studies are expected by the end of 2016. It was noted that the use of these agents, which is currently limited by their high cost, will be expanded as outcome results are available, and diagnostic methods improve the identification of high-risk patients in whom the number needed to treat is low enough to justify the cost.

Dr. Wolfgang Koenig described advances in the use of blood biomarkers to improve detection of patients at increased risk for cardiovascular events. Dr Lorenz Räber reported that OCT imaging showed an increase in signals indicating that 13 months of intensive statin therapy increases plaque cap thickness, which would be expected to stabilize the plaque.

At the conclusion of the symposium the Board of Directors concluded that it will be of great value to continue the annual meeting. It was noted that multiple clinical trials of the detection and treatment of vulnerable plaques and vulnerable patients are in progress. The 2017 meeting will provide an opportunity to continue study of the mechanisms producing vulnerability and review results of several of the ongoing clinical outcomes trials.