Dynamic Aspects of Associations in Coronary Artery Disease:
From Intracoronary Imaging to Blood Biomarkers

1. By studying (novel) blood biomarkers in detail, not only valuable knowledge on atherosclerosis could be obtained in a non-invasive manner, but also the dynamic and versatile nature of atherosclerotic disease might be more accurately reflected. This thesis (general introduction).

2. Invasive assessment of coronary plaque by virtual histology-intravascular ultrasound (VH-IVUS) not only accurately quantifies coronary atherosclerosis, but also enables in-vivo analysis of coronary plaque composition as well as plaque vulnerability. This thesis (part 1).

3. Since biomarker profiles may serve as a proxy for cardiovascular disease status and development, the exploration of (established and) evolving markers covering relevant pathophysiological processes is warranted. This thesis (part 2).

4. Genetic variants may be instrumental to target pharmacological treatment at an individual level and reach an optimal treatment response. This thesis (part 3).

5. Coronary artery disease patients should be regarded as a heterogeneous group with a more individual approach, considering their different composition of constantly dynamic underlying pathophysiological components. This thesis (general discussion).

6. We also need to reach beyond a ‘one size fits all’ approach and to develop ‘smarter’ trial designs, including the judicious use of biomarkers and genetic information to target therapies towards those who are most likely to benefit from treatment to enhance their likelihood of success, and to achieve the goal of precision medicine in the future management of atherosclerotic risk in our patients. Peter Libby (Circ Res 2016; 118(4): 531-534).

7. The trajectory of cardiovascular disease, including both the acute and recovery phases, involves continuous adjustment by patients and family members as they attempt to reconcile the impact of the event and adapt to the uncertainties associated with the chronicity of coronary heart disease. Elizabeth van Horn (Heart Lung 2002; 31: 186-198).

8. If you torture the data long enough, nature will always confess. Ronald Coase (British economist).


10. Whether one moves slowly or with speed, the one who is a seeker will be a finder. Rumi (Persian poet).


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