

Low density lipoproteins (LDL) accumulation in right coronary artery

The convection-diffusion-reaction equation can be used to model the transport of the low-density lipoproteins (LDL) in the arterial wall. LDL is a lipoprotein associated with the development of the atherosclerotic plaque and coronary artery disease. In this poster we present LDL concentration profiles obtained for patient specific right coronary artery. The case with normal pressure and hypertension are discussed. Simulations of the LDL concentration based on medical imaging may become an important diagnostic tool. Simulation results indicate points, where atherosclerosis may occur.

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