

Abstrakt v anglickém jazyce

Lipoprotein-associated phospholipase A2 (Lp-PLA2) is an extracellular Ca²⁺-independent 45 KDa secreted enzyme formed by 441 amino acids. It circulates in plasma in the active form and is encoded in the PLA2G7 gene located on chromosome 6p12-21.1. Lp-PLA2 hydrolyzes several types of short-chain and oxidized phospholipids that harbor acyl groups at the second position of the glycerol backbone. It is mostly bound to low density lipoprotein (LDL) particles and it is thought to play a role in the development of cardiovascular diseases (CVDs). Indeed, multiple studies propose that elevated mass concentration and/or activity of Lp-PLA2 is an independent risk factor for the development or recurrence of CVDs.

We performed a cross-sectional analysis on 44 geriatric patients aged 79.6 ± 5.6 years that had undergone transcatheter aortic valve implantation (TAVI) or balloon valvuloplasty (BV) for the treatment of severe aortic stenosis. Lp-PLA2 mass concentration was already increased in elderly patients before TAVI or BV and significantly increased after the procedures. We found strong correlations with LDL concentration (LDL-C), total cholesterol and triglycerides. Baseline Lp-PLA2 mass concentration was increased in diabetic patients comparing to non-diabetic patients. We then discuss and explore these findings in comparison to the available literature. We also question the current available meta-analyses and the role of correlational statistics when the role of the studied enzyme is not completely understood.