

Association of galectin-3 and significant atherosclerotic epicardial artery disease in patients with chronic coronary syndrome

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Background: The aim of this study is to examine possible association between serum galectin-3 values and the presence of significant atherosclerotic epicardial artery disease in patients with chronic coronary syndrome.

Patients and Methods: Subjects with suspected coronary artery disease and indication for coronary angiography were included in study. Subject were divided in three groups: a) subject with indication for PCI, b) subject with indication for CABG and control group (without coronary artery disease). Galectin-3 value was measured by enzyme immunoassay (EIA) test.

Results: T-test and ANOVA variance analysis was performed for statistically analysis (SPSS program, version 17.0). The mean value of galectin-3 in the study group was statistically higher than in control group (19.98 ng/ml vs. 9.51 ng/ml, $p < 0.001$). In subgroup analysis there was no statistically significant difference in the values of galectin-3 between the PCI and CABG groups (18.84 ng/ml vs. 21.27 ng/ml ($t = 7.417$, $p < 0.001$)).

Conclusion: Galectin-3 has shown potential to be reliable marker for assessment of significant coronary disease existence as well as a predictor of adverse cardiovascular events¹⁻³.

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LITERATURE

1. Li M, Guo K, Huang X, Feng L, Yuan Y, Li J, Lao Y, Guo Z. Association Between Serum Galectin-3 Levels and Coronary Stenosis Severity in Patients With Coronary Artery Disease. *Front Cardiovasc Med*. 2022 Feb 7;9:818162. <https://doi.org/10.3389/fcvm.2022.818162>
2. Blanda V, Bracale UM, Di Taranto MD, Fortunato G. Galectin-3 in Cardiovascular Diseases. *Int J Mol Sci*. 2020 Dec 3;21(23):9232. <https://doi.org/10.3390/ijms21239232>
3. Bosnjak I, Bedekovic D, Selthofer-Relatic K, Bilic-Curcic I. Galectin-3: A Heart Failure Biomarker as Sign of Active Coronary Heart Disease. *World Journal of Cardiovascular Diseases*. 2017;7(11):373-9. <https://doi.org/10.4236/wjcd.2017.711035>