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A clinical study of serum GGT, Cyr61 combined FFR values to predict the risk of major adverse cardiac events in patients with moderate coronary artery stenosis after PCI**Ming Hu***The People's Hospital of kaizhou District, China*

Objective: To investigate the predictive value of serum γ -glutamyltranspeptidase (GGT), Cysteine-rich angiogenic inducer 61 (Cyr61) and the blood flow reserve fraction (FFR) in the risk of major adverse cardiac events (MACE) after percutaneous coronary intervention (PCI) for moderate coronary artery stenosis.

Methods: From January 2020 to January 2022, 120 patients with coronary artery stenosis diagnosed by CT angiography and undergoing PCI in our hospital were selected for retrospective analysis. The patients were followed up for 1 year and divided into MACE group and non-MACE group according to the occurrence of MACE. The clinical features and preoperative laboratory test results of the two groups were collected and compared. Univariate and multivariate Logistic regression models were further used to analyze the independent risk factors affecting the occurrence of MACE after PCI. The predictive value of serum GGT, Cyr61 and FFR values for MACE after PCI was analyzed by receiver operating characteristic curve (ROC).

Results: During the postoperative follow-up, 17 patients developed MACE (14.17%). The proportion of old age and the KILLIP heart function grade >III, the levels of serum GGT and Cyr61 were higher than those of the non-MACE group, and the FFR value was lower than that of the non-MACE group, the difference was statistically significant ($P < 0.05$). Multivariate Logistic regression analysis showed that increasing age, KILLIP heart function grade >III, serum GGT and Cyr61 were independent risk factors for MACE after PCI, and FFR was independent protective factor ($P < 0.05$). ROC curve analysis showed that the area under the curve of serum GGT and Cyr61 combined FFR in predicting the risk of MACE in patients with moderate coronary artery stenosis after PCI was 0.812, which was larger than 0.701, 0.657 and 0.746 predicted by serum GGT, Cyr61 and FFR alone ($P < 0.05$).

Conclusion: The increase of serum GGT and Cyr61 levels and the decrease of FFR are closely related to the occurrence of MACE in patients with moderate coronary artery stenosis after PCI, and the level of GGT, Cyr61 and FFR can predict the risk of MACE in patients with moderate coronary artery stenosis after PCI.

Biography

Dr. Ming Hu is a distinguished medical professional affiliated with The People's Hospital of Kaizhou District, China. With extensive expertise in clinical medicine, Dr. Hu has dedicated many years to advancing healthcare practices in the region. His contributions have been instrumental in improving patient outcomes and advancing research initiatives within his field. Known for his commitment to patient care and medical innovation, Dr. Hu has been involved in various clinical studies and has presented at numerous national and international medical conferences. His insights and research findings have significantly contributed to the growth of healthcare services in Kaizhou District, making him a respected figure in his community and beyond.