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**Clinical study of platelet volume and neutrophil to lymphocyte ratio predicting the risk of major cardiac adverse events in patients with moderate coronary artery stenosis after PCI**

**Xie Feng**

Bishan Hospital of Chongqing, China

**Objective:** To investigate the predictive value of mean platelet volume (MPV) and neutrophil to lymphocyte ratio (NLR) in the risk of major adverse cardiac events (MACE) in patients with moderate coronary stenosis with coronary artery disease (CHD) after percutaneous coronary intervention (PCI).

**Methods:** A total of 180 patients with moderate coronary artery stenosis with CHD admitted to our hospital from March 2020 to March 2022 were selected, followed up for 1 year after PCI, and divided into MACE group (25 cases) and non-MACE group (155 cases) according to whether MACE occurred. MPV and NLR values were detected. Multivariate Logistic regression was used to analyze the risk factors affecting the occurrence of MACE in patients with moderate coronary artery stenosis with CHD after PCI, and the predictive value of MPV and NLR values on the occurrence risk of MACE in patients with moderate coronary artery stenosis with CHD after PCI was analyzed by receiver operating characteristic curve (ROC).

**Results:** The incidence of MACE in 180 patients with moderate coronary artery stenosis with CHD after PCI was 13.89% (25/180). Compared with non-MACE group, the levels of MPV and NLR were increased in MACE group ( $P<0.05$ ). Multivariate Logistic regression analysis showed that KILLIP grade  $\geq$ III, MPV increase, NLR increase and GRACE score increase were independent risk factors for the occurrence of MACE after PCI in patients with moderate coronary artery stenosis with CHD, and left ventricular ejection fraction increase was independent protective factor ( $P<0.05$ ). ROC curve analysis showed that the AUC of MACE occurrence predicted by MPV and NLR combined was 0.849, which was greater than 0.621/0.678 predicted separately ( $P<0.05$ ).

**Conclusion:** The MPV and NLR levels of patients with MACE after PCI in patients with moderate coronary artery stenosis with CHD have a certain predictive value for the occurrence of MACE after PCI.

**Biography**

Xie Feng, born on May 7,1980, has a bachelor's degree, mainly engaged in cardiovascular medicine, with the main research direction of coronary artery intervention and pacing, and has many years of clinical work experience.

Xiefeng77118@126.com

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