INFLUENCE OF SMOKING CESSION ON INFLAMMATORY BIOMARKERS LEVEL IN PATIENTS WITH ACUTE CORONARY SYNDROME

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Objective To investigate the influence of smoking cessation on inflammatory biomarkers in patients with acute coronary syndrome (ACS).

Methods Two hundred and sixteen ACS patients with smoking history were divided into two groups: cessation and smokers. An additional 40 ACS patients without smoking history were enrolled as controlled group. Risk factor profile was assessed at the beginning of the study. The hs-CRP, fibrinogen and white blood cell count were examined in every patient.

Results (1) As for general condition (age, SBP, LDL-C, TG, etc.) except for cardiovascular event, there was no significant difference between these three groups (cessation, smokers and controls). (2) hs-CRP (4.16±0.52 vs 5.46±0.68 vs 2.68±0.32), fibrinogen (3.84±0.41 vs 4.38±0.53 vs 2.52±0.33) and WBC count (6.23±0.82 vs 7.58±0.78 vs 5.44±0.65) in three groups were significantly different from each other (p<0.05). (3) Cessation group was further divided into three subgroups according to how long a patients quit smoking: 1 year, 1–5 years, >5 years. hs-CRP, fibrinogen and WBC count were also significantly different among these three subgroups. There is no significant difference between subgroup (>5 years) and controls.

Conclusion Smoking cessation can lower the possibility of cardiovascular events and reduce inflammatory biomarkers in patients with ACS. This reduction is related with time of cessation.