

Expression of CCR3 Receptor in Patients with Acute Coronary Syndromes

Tomer Greener, Maysel-Auslender Sofia, Entin-Meer Michal, Gadi Keren, Jacob George
*Cardiology Department, Cardiovascular Laboratory, Tel Aviv Sourasky Medical Center,
Tel-aviv, Israel*

OBJECTIVE: Chemokines and their receptors play an important role in atherosclerosis. CCL11 (Eotaxin) is a potent eosinophil chemoattractant that is present in atheromatous plaques. The major receptor for CCL11 is CCR3, which is found on leukocytes and on some nonleukocytic cells. In this study, we aimed to evaluate the expression of the receptor CCR3 in ACS patients compared to patients without ischemic heart disease (IHD) and the association of CCR3 levels with the extent of angiographically coronary artery disease (CAD). **METHODS AND RESULTS:** We examined 50 patients that presented with ACS and that had coronary angiography during their admission. CCR3 expression in peripheral blood mononuclear cell were significantly reduced in patients with ACS compared to patients without IHD [0.6(0.4-0.7) versus 1.2(0.6-0.15), respectively; $P < 0.001$]. We did not observe a correlation between levels of CCR3 receptor and the extent of CAD. **CONCLUSIONS:** This is a first report showing that CCR3 levels are reduced during cardiac ischemia. This may point to the involvement of eotaxin and its receptor in the pathophysiology of the plaque rupture and its potential role as marker of coronary ischemia.