STUDY ON THE ROLE OF CYTOMEGALOVIRUS IN THE PROMOTION OF ACUTE MYOCARDIAL INFARCTION

H. Honarmand¹, M. Rahbar Taromsari², H. Zaredar³, E. Mirzajani⁴, Z.Z. Zareichian⁵

¹Cellular and Molecular Research Center, Guilan University of Medical Sciences, Lahijan, ²Legal Medicine, Guilan University of Medical Sciences, Rasht, ³Microbiology, Azad University of Lahijan, Lahijan, ⁴Cellular and Molecular Research Center, Guilan University of Medical Sciences, Rasht, ⁵22 Aban Hospital, Guilan University of Medical Sciences, Lahijan, Iran

Introduction: Acute myocardial infarction is one of the main causes of morbidity and mortality worldwide. Chronic and persistent infections such as Cytomegalovirus are considered as predisposing factors for MI.

Objective: We studied role of chronic infection with Cytomegalovirus, in predisposing MI.

Material and method: Sera of 100 patients with acute heart attack, and 63 control individuals who were matched by gender and age were examined by a commercial quantitative cytomegalovirus IgG - ELISA kit (Euroimmuno) simultaneously. Results were analyzed by chi - square test.

Results: 82% of patients were seropositive with mean titer 123.8 RU/ml, 18% of them were negative with 15.2 RU/ml mean titer. 58% of patients were heavy smoker. During past year, 69% of patients had respiratory infections, 23% had acute febrile diseases, 56% had heart diseases, 68% had hypertension. All studied parameters had no significant relationship to seropositivity rate but a significant relationship had been between seropositive and MI (p= 0.000).

Discussion: We did not find a significant relationship between seropositivity rate and age, living place, job, gender, past year respiratory infections, acute febrile diseases, heart diseases, and hypertension which are common direct and indirect risk factors for MI but a significant relationship were found between seropositive and MI. So, Chronic and persistent infections with cytomegalovirus can be considered as a nondependent risk factors for MI.