Acute Myocardial Infarction: Melatonin, Apelin, and Visfatin as Predictors of Disease
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Abstract

Background: Acute myocardial infarction continues to be a major health concern. It contributes to morbidity and may end fatally.

Objective: To evaluate Visfatin, apelin melatonin, and interleukin-6 levels in patients with acute myocardial.

Patients and Methods: The study included 30 AMI patients (group :I) and 30 as healthy control group (group: II). Visfatin, apelin melatonin, interleukin-6 levels were assessed.

Results: Significantly higher levels of serum apelin, IL-6, cholesterol, and triglyceride, while significantly lower levels of serum melatonin, visfatin , and HDL were observed in the cases than in the controls. Receiver operator characteristic curve investigation shown the levels of melatonin and apelin are the best biomarkers differentiating subjects with AMI. (AUC=0.997; 95% CI: 0.933 to 1.000, cutoff value ≤ pg/ml ), (AUC =0.952; 95% CI: 0.863 to 0.990, cutoff value >3.21 pg/ml respectively )

Conclusion: This study shows a significantly increase in apelin, IL-6 while a significantly decrease melatonin, visfatin in the circulation of G:I as compared with G:II. The results obtained in the present study indicate that serum melatonin; apelin might play an important pathogenic role not only in the occurrence but also in the severity of AMI. The circulating level of melatonin provides highly specific biomarker for AMI more than apelin.

Key words: Acute myocardial infarction, Visfatin, Apelin, Melatonin, Interleukin-6.

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