Int J Cardiovasc Res 2018, Volume 7
DOI: 10.4172/2324-8602-C1-006



## The ınvestigation of vitamin D3 and other risk factors in young adult patients with acute coronary syndrome

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Cardiovascular diseases play increasing role in the etiology of mortality and morbidity in the world. The increasing number of coronary artery diseases (CAD) in young adults and acute coronary syndromes (ACS) which progress more fatal than elder patients, is getting more important day by day. In our country, there is not any study to evaluate the risk factors in young adults with ACS. Our purpose in this study is to identify the risk factors that cause ACS in the young population. We retrospectively choosed 61 patients with ACS within the ages between 18-50 years and 61 age-sex matched volunteers who have no CAD. The patients who admitted to Mersin University Med. Fac. Cardiology Dep. with the diagnosis of the ACS in time periods between 01.01.2013-30.04.2014 were included in the study population. The control group composed of patients who admitted to Cardiology Clinic at the same time period. The history of HT, DM, HL, anxiety and family history risk factors were recorded. BMI and waist length of patients were recorded. Fasting blood glucose (FBG), postprandial blood glucose (PBG), lipid profiles, vitamin D3, homocysteine, folic acid and uric acid levels were scanned and recorded. There is a significant difference between groups with respect to age, gender and folic acid levels. ACS had significantly higher BMI ($p<0.001$) and waist length ($p=0.001$) then control group. In history of ACS patients, they had higher HT ($p=0.004$), DM ($p=0.022$), family history ($p=0.011$), anxiety history ($p=0.031$) and smoking (72.1% vs. 36.1%, $p<0.001$) than control group. Vitamin D3 levels were significantly lower in ACS group than control group (16.6±6.3 µg/L vs. 20.6±5.9 µg/L, $p<0.001$). Homocysteine (18.5±8.5 µmol/L vs. 12.2±2.4 µmol/L, $p<0.001$), uric acid ($p=0.006$), triglyceride ($p<0.001$), VLDL ($p=0.001$), FBG ($p=0.011$) and PBG (131±48 mg/dl vs. 107±19 mg/dl, $p=0.001$) were found significantly higher in ACS group than the control group. In linear regression analysis; vitamin D3, homocysteine, PBG levels and smoking were found independent risk factors for ACS (respectively; $t= -3.0$, $p=0.004$, $t= 4.6$, $p<0.001$, $t=2.2$, $p=0.032$ and $t=3.3$, $p=0.001$).

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