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<b>Thesis Title</b>	<b>Evaluation of Serum Apelin in Patients with Acute Coronary Syndrome</b>		
<b>Year</b>	<b>2015</b>		
<b>Abstract</b>	<p>The term acute coronary syndrome (ACS) refers to a group of clinical symptoms compatible with acute myocardial ischemia including unstable angina (UA), Non-ST-segment elevation myocardial infarction (NSTEMI) &amp; ST-segment elevation myocardial infarction (STEMI).</p> <p>In addition to clinical and electrocardiogram (ECG) findings, several Biochemical markers are considered in patients with chest pain to diagnose myocardial ischemia.</p> <p>Apelin is a novel endogenous peptide with inotropic and vasodilatory properties, immunohistochemically it was hown to be synthesized in smooth muscle cells and fibroblast cells of coronary arteries. it was recently reported that serum measurements of apelin were similar to its immunohistochemical data in vessels and heart tissues.</p> <p><b>Objectives :</b> To evaluate serum levels of apelin in relation to the subtypes of ACS..</p> <p><b>Patients, Material &amp; Methods:</b> The present study was conducted during the period from September 2014 until March 2015. Fifty-nine patients with ACS are included as 30 unstable angina (UA), 15 non ST elevation myocardial infarction (NSTEMI), &amp; 14 ST elevation myocardial infarction (STEMI) patients. The study included also (28) apparently healthy persons served as control. Blood samples were obtained for measurements of (apelin, Troponin, CK-MB, &amp; Lipid Profile) for all participants.</p> <p><b>Results:</b> Serum apelin levels were significantly decreased in total patients with</p>		

**ACS (1846.1±320.9 ng/ml) compared to control (2719.4±272.5) (p< 0.05). Regarding patients' subgroups; serum apelin was lowest in STEMI (1729.0±480.0), NSTEMI (1816.0±289.0), & UA (1916.0±224.4) when compared with control.**

**Total cholesterol and LDL levels were higher in patients compared to control although the difference was not significant. While there were significant differences in TG, HDL and VLDL between ACS patients and control group.**

**The percentage of risk factors' distribution in ACS recorded the highest for obesity (>80%), hypertension (~80%), and DM (~70%); while lesser percentages were recorded for smoking, left ventricular hypertrophy, ischemic heart disease, and dyslipidemia.**

**Conclusion:**

**Data obtained revealed a reduction in serum apelin levels in all patients groups especially STEMI. Since apelin acts as an indicator for the efficiency of heart function and coronary circulation, it could be used as a indicator for assessment of severity of ischemia in ACS patients.**

