We investigated whether there is an association between serum ferritin or soluble transferrin receptor (sTfR) concentrations and coronary artery disease (CAD) or its clinical presentations. This is a case-control study that included 892 patients (664 cases with angiographically proven CAD and 228 controls without CAD). Blood was collected before angiography for determination of sTfR, ferritin and C-reactive protein (CRP). The values (median, 25th-75th percentiles) of sTfR (2.6 [2.1; 3.2]mg/l versus 2.4 [2.1; 3.0]mg/l, P = 0.13) or ferritin (140.1 [74.8; 248.3]ng/ml versus 120.1 [74.9; 218.0]ng/ml, P = 0.11) did not differ significantly between cases or controls. The values of sTfR in the case subjects with 1-vessel, 2-vessel, and 3-vessel CAD were: 2.4 [2.0; 3.0], 2.6 [2.0; 3.2], and 2.8 [2.2; 3.3]mg/l, respectively (P = 0.003). In multivariate analysis, neither sTfR (chi2 = 0.14, P = 0.70) nor ferritin (chi2 = 2.8, P = 0.09) correlated independently with the presence of CAD. In case subjects with stable angina, unstable angina, and acute myocardial infarction (MI), ferritin concentrations were: 127.5 [69.5; 214.0], 138.9 [86.1; 278.0], and 175.0 [93.5; 314.5]ng/ml, respectively (P< 0.001). Our results showed that serum concentrations of sTfR or ferritin do not predict the risk for coronary artery disease. In subjects with pre-existing CAD, those with more severe disease had increased levels of sTfR. Patients
with CAD presenting with acute coronary syndromes showed increased levels of serum ferritin.