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Research Article

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[Are S-Klotho's Maximal concentrations dependent on Exercise Intensity and Time in young adult males?](#)

The purpose of the present study was to define the period of time in which aerobic training does not increase further serum S-Klotho levels in untrained young adult males, and to examine the relation between plasma S-Klotho concentration and maximal oxygen uptake (VO₂max).

Methods: Sixty (60) untrained subjects (27.05±1.1 years) were divided into 2 groups, both exercised six months 4xwk⁻¹ for the duration of 45 minxsession. One group (LTI) exercised below the anaerobic threshold at 40-50% of VO₂max, while the second group (HTI) worked above the anaerobic threshold at 65-70% of VO₂max. Testing sessions were performed at 0, 2, 4, and 6 months. Blood samples were drawn after overnight fasting; S-Klotho was analyzed using an ELISA kit.

Results: Following 2 and 4 months, significant ($p < 0.05$) increases were noted in the HTI group, at the fourth testing session, S-Klotho leveled off. In the LTI group, S-Klotho remained almost unchanged. Findings of the present study, support emerging evidence suggesting that a relation between plasma S-Klotho concentration and VO₂max exists.

Conclusion: Data suggest that increases in S-Klotho is tidally associated with VO₂max levels. In addition, the S-Klotho increase levels-off following 4 months of aerobic training. Exercising below the anaerobic threshold does not increase VO₂max and thus, does not increase S-Klotho.

Research Article

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[Diagnostic accuracy of TIMI versus GRACE score for prediction of death in patients presenting with Acute Non-ST Elevation Myocardial Infarction \(NSTEMI\)](#)

Background: Acute Coronary Syndrome describes a spectrum of disease ranging from unstable angina through non-ST-Elevation Myocardial Infarction (NSTEMI) to ST-Elevation Myocardial Infarction (STEMI). Early death in NSTEMI is usually due to an arrhythmia. Patients should be admitted immediately to hospital, preferably to a cardiac care unit because there is a significant risk of death.

Objective: To compare the diagnostic accuracy of TIMI versus GRACE for prediction of death in patients presenting with Acute Non-ST elevation Myocardial Infarction.

Material & Methods: This present cross sectional study was conducted at Department of Cardiology, CPEIC, Multan. All patients assessed according to given scores in the two scoring system i.e. TIMI risk score and GRACE score. Then patients were labeled as high or low risk for death. Data was collected by using pre-designed proforma. 2x2 tables were generated to measure the sensitivity, specificity, positive predictive value, negative Predictive value and diagnostic accuracy of TMI Risk score and GRACE Score for prediction of death in NSTEMI patients.

Results: In our study the mean age of the patients was 55.73 ± 9.78 years. The male to female ratio of the patients was 1.6:1. The diabetes as risk factor was found in 145(39%) patients, smoking as risk factor was found in 53(14.2%) patients and hypertension as risk factor was found in 174(46.8%) patients. the sensitivity of TIMI risk was 97.7% with specificity of 92.93% and the diagnostic accuracy was 95.16%, similarly the sensitivity of GRACE risk was 100% with specificity of 95.96% and the diagnostic accuracy was 97.85%.

Conclusion: Our study results concluded that both the TIMI risk and GRACE risk are good predictor of death in patients presenting with Acute Non-ST elevation Myocardial Infarction with higher sensitivity and diagnostic accuracy. However the GRACE risk showed more accurate results as compared to TIMI risk.
