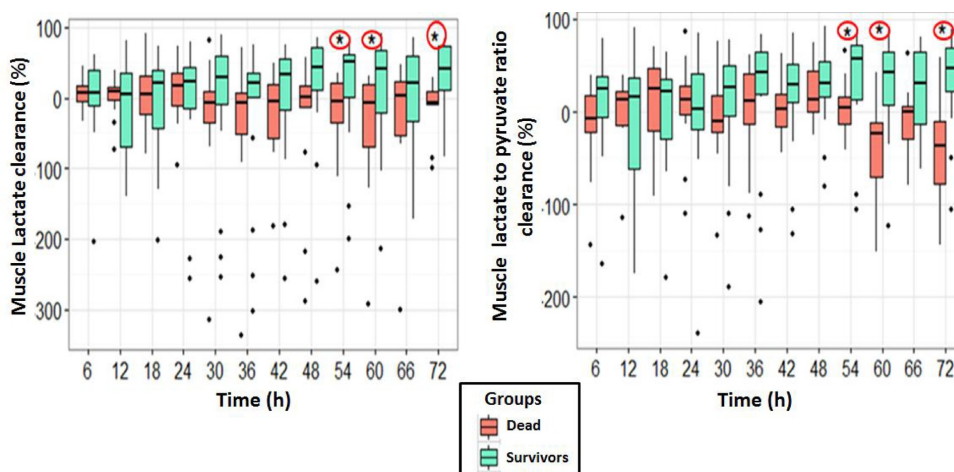


P2507 Muscle lactate and lactate-to-pyruvate ratio clearance as useful biomarkers for prediction of mortality in septic shock patientsZied Hajjej¹, Olfa Yengui¹, Mayssa Daiki¹, Aicha Rebai¹, Iheb Labbene¹, Ferjani Mustpha¹¹ Military Hospital of Tunis, Université de Tunis El Manar, Tunis

Background: Microcirculatory alterations are frequently observed in patients with sepsis. In vivo microdialysis (MD) is a bedside technique that can monitor tissue metabolic changes. We conducted this study aiming to assess the performance of muscle Lactate and lactate to pyruvate (L/P) ratio clearance in predicting mortality in septic shock patients by using microdialysis

Materials/methods: The study was designed as a prospective, controlled, clinical trial and performed in a multidisciplinary intensive care unit. 56 septic shock patients were enrolled. Interstitial tissue concentrations of lactate, pyruvate, glucose and glycerol were obtained at baseline and every 6 hours for 3 days by using muscle microdialysis. Clearances of muscle lactate, and L/P ratio were defined as the percentage change in muscle lactate level or L/P ratio compared to baseline (H0) values. A positive value of clearance means a decrease in the rate of the parameter under study.

Results: We found an association between muscle lactate clearance and hospital mortality with a statistically significant difference at H54 ($p = 0.037$), H60 ($p = 0.033$) and H72 in the study ($p = 0.012$). We also found an association between clearance of muscle lactate to pyruvate ratio and hospital mortality with a statistically significant difference at H54 ($p = 0.015$), H60 ($p = 0.001$), and H72 of the study ($p = 0.04$).



Conclusions: Among patients with septic shock, improvement of muscle Lactate and lactate to pyruvate ratio clearance from the 54th hour may indicate a resolution of global tissue hypoxia and is associated with decreased mortality rate.

