

## LETTER TO THE EDITOR

# Discernment of Mortality Predictors in Patients with Major Injuries-direct Trauma Impact or Systemic Complications

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Dear Editor,

I have recently read the article by Martin-Rodriguez and Lopez- Izquierdo “Prognostic value of lactate in prehospital care as a predictor of mortality and high-risk patients with trauma”, where the authors analysed the prehospital lactate acid (PLA) serum level, and found it as good mortality predictor in patients who suffered major injury (MI) [1].

Although normal lactate level (LL) was recognized as marker of competent aerobic metabolism and completed resuscitation, on the other side, it presents excellent predictor for optimal timing and method of surgical treatment in polytraumatized patients. During long period of development of damaged control orthopaedic principles, high LL brings multiple risk for developing postoperative complications after surgical treatment of femoral fractures in polytrauma patients, if these surgeries were performed with intramedullary nailing (IMN) before LL decreased to normal value [2]. Respectfully, Brazilian authors in the similar study and sample size found LL itself not to be related as the risk for mortality in multiple trauma patients, as both victims and survivors’ groups had similar LL by admission time. According to analyzed data, injury mechanisms and injured anatomical regions, such as brain injuries in motorcycle riders, were shown as much more precise risks for death in multiple injured patients [3]. Moreover, analysis of death causes in severely injured patients treated in level I trauma centers through almost three decade period found that the lethal injury patterns’ rates did not change except reduction in exsanguination related death rate, but both brain and bleeding injuries still bring higher mortality risks than complications like sepsis and multiorgan failure (MOF) [4]. Finally, various authors dedicated their studies to detecting possible risks for complications and death in severely injured patients. We have to highlight that death due to severe injuries is divided into early and late death, where different anatomical injury scores like Trauma Injury Severity Score (TRISS) should be primarily considered for overall damage severity as well as for early death rate risks [5].

In this article, the authors marked PLA as a valuable death predictor for patients suffering MI, analyzing death appearance in 2, 7 and 30 days. They did not provide information about injury severity using scores, as well as causes of death for each group of patients. PLA and LL are excellent markers of metabolism condition, quality of resuscitation and risk for developing systemic complications in treating the MI patients [1–3], but should be used to improve resuscitation, plan and avoid harmful and aggressive surgical procedures and prevent complications that could worsen patient’s condition or even jeopardize life. They should not be superior in estimating death risks in MI patients to direct trauma lethal effects in brain and other life incompatible injuries causing death in early period.

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**CONFLICT OF INTEREST**

We declare that we do not have any commercial or associative interest that represents a conflict of interest in connection with the work submitted.

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