

March 27-28, 2023

Webinar

Journal of Surgery

ISSN: 1584-9341

Serum lactate, base deficit and glucose levels as prognostic markers of traumatic brain injury**Keshav Goyal*, Ratnesh Kumar Shukla, Niraj Kumar, Gyanindra Pal singh, Ashish Bindra and Navdeep Sokhal***All India Institute of Medical Science, India***Introduction:**

The present study was conducted to evaluate whether the initial Serum Lactate (SL), Base Deficit (BD) and Serum Glucose (SG) levels are prognostic markers in sTBI patients.

Material and Methods:

This prospective, observational study included sTBI patients reporting within 24 hours over 18 months in a neurotrauma ICU of tertiary care hospital. A single measurement of SL, BD and SG was taken at time of admission. Our primary outcome was to assess impact of these biochemical parameters on neurological outcome at 30th day of injury [as measured in terms of Glasgow Outcome Scale Extended (GOS-E)].

Results:

Out of assessed, a total of 101 patients (84.1% males and 15.9% females) with mean age of 32 years were included in study. 36 (35.6%) patients died within 30 days of admission. Both SL (>4 mmol/L) and SG (>180 mg/dl) were associated with unfavourable outcome (GOS-E<4) ($p<0.01$). These biochemical parameters correlated with Injury Severity Score (ISS), Revised Truma Score (RTS), Trauma, Injury Severity Score Derived Death Predictable Rate (TRISSPd) and Rotterdam CT score. The association of above biochemical parameters with these trauma scores was found to be statistically significant ($p<0.01$), except Rotterdam CT score ($p=0.15$) [Figure 1].

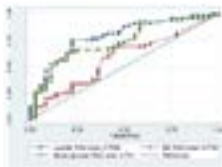


Figure 1. ROC curves of serum lactate, BD and blood glucose with GOS-E

Conclusion:

SL and SG levels at time of admission may act as prognostic markers in sTBI patients and predict ICU mortality. Also ISS, RTS and TRISSPd are significantly associated with these biochemical parameters in prognostication of sTBI.

Biography

Keshav Goyal is Professor, in the Department of [Neuroanesthesiology](#) and critical care, at AIIMS, New Delhi, India. He is actively involved in conducting Research projects (e.g., Intramural, extramural, DM thesis). He is the instructor (Faculty) of-ATLS, ANC, ACCC, AIIMS cadaver airway. He has Awarded Young talent Hunt by ISCCM at CRITICARE. He has Awarded Visiting Preceptorship in Neurological intensive care and Neuroanaesthesiology at Cleveland Clinic, Ohio, USA in March 2018. He is also a Member of Trainee Engagement Committee of SNACC, USA. He has done NANC- Refresher Course/PG assembly AIIMS. He is a Reviewer for IJA, IJCCM, JNACC, JOACP, BJA case reports, Neurosurgery Review. He was the Organizing Secretary of 3rd Annual Conference of Neurocritical Care Society of India (NCSI 2022) & AIIMS Neuroanaesthesia and Neurocritical Care Update 2022.

Received: 16/01/2023 | Accepted: 18/01/2023 | Published: 06/04/2023