

23<sup>rd</sup> Annual Congress on

# PEDIATRICS & NEONATOLOGY

November 05-06, 2018 Bangkok, Thailand

## The relationship between the plasma lactate dehydrogenase and severe conditions in newborn infant: A prospective study

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**Background & Aim:** The plasma Lactate Dehydrogenase (LDH) is an indicator of body tissue hypoxia. In severe illness, because of lacking oxygen, glucose is metabolized by anaerobic glycolysis. LDH is a hydrogen transfer enzyme that catalyzes the oxidation of lactate to pyruvate. This study aims to find out the relationship between severe clinical conditions with plasma LDH levels in neonates.

**Method:** A prospective longitudinal cohort study in 275 high risk neonates who were admitted to the neonatal intensive care unit at the Hue University Hospital from April 2016 to May 2017 in the early neonatal period. Plasma LDH were measured at the time of admission within 12 hours of post-partum and correlated to clinical conditions.

**Result:** Mean plasma LDH levels in term neonates are significantly higher than preterm ones with  $p=0.0006$ . Newborn with asphyxia had a significantly higher LDH values than the non-asphyxia with  $p=0.0289$ . Newborn with early-onset neonatal sepsis had a significantly higher LDH values than other group with  $p=0.0035$ . Infants with respiratory distress requiring CPAP had a significantly higher LDH values than illness non-requiring CPAP with  $p=0.0421$ .

**Conclusion:** There was significantly relation between gestational age, early-onset neonatal sepsis, asphyxia, respiratory distress requiring CPAP with plasma LDH in high risk neonates.

### Biography

Ton Nu Van Anh is an Associate Professor at Hue University Hospital, Vietnam. She has participated in many national and international oral and poster presentations.

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