

## **Lactate Dehydrogenase level in nasal wash fluid as a novel marker for respiratory syncytial virus induced bronchiolitis**

**Sanaa Mahmoud**

Zagazig University, Egypt

Respiratory syncytial virus bronchiolitis is an important cause of wheezy chest in infancy and can be lifethreatening. Nasal wash lactate dehydrogenase (NWLDH) which is released from injured epithelial cells may be used for prediction of disease severity. The aim of this study was to assess the use of NWLDH versus serum LDH, IL-6 and TNF- $\alpha$  in the evaluation of RSV bronchiolitis severity in infants. A total of 55 infants older than 6 months old who presented with bronchiolitis were prospectively enrolled in the study. Nasal-wash samples were analyzed to detect RSV by polymerase chain reaction and quantify LDH concentration and serum samples to quantify IL-6, TNF- $\alpha$  and LDH concentrations. The median concentrations of serum LDH and NWLDH were significantly higher in infants with severe than were those with moderate respiratory disease ( $p=0.002$ ,  $0.0001$  respectively) while no significant difference was observed according to IL-6 and TNF- $\alpha$ . However; SLDH, NWLDH and IL-6 levels presented significant positive correlations with disease severity and the length of hospital stay, also between NWLDH and IL-6 with duration of oxygen therapy. While; TNF- $\alpha$  presented a significant positive correlation with disease severity only. There was a significant positive correlation between NWLDH and S.LDH ( $r = 0.7$ ,  $p < 0.0001$ ). The measurement of LDH in nasal wash rather than serum LDH, IL-6 and TNF- $\alpha$  is more practical for monitoring the severity of RSV bronchiolitis in infants.

**Keywords:** Bronchiolitis, LDH, IL-6, TNF- $\alpha$ , infants, nasal wash.

### **Biography**

Sanaa Mahmoud had taken Bachelor Degree at Faculty of Medicine, Zagazig University, Zagazig, Egypt (December 1997), Passing Master Degree on May 2002, Passing M.D. Degree on April 2007.

Sanaa Mahmoud is a lecturer in Pediatric Department, Faculty of Medicine, Zagazig University during the period from September 2007 till now.

[drsanaa74@yahoo.com](mailto:drsanaa74@yahoo.com)