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## Magnesium sulphate as an adjuvant therapy in critically ill infants and children presenting with wheezy chest

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**Background:** Wheezy chest remains one of the major causes for emergency department visits and admissions at Pediatric intensive care units (PICUs).

**Objective:** We aimed to determine the efficacy of magnesium sulphate  $(MgSO_4)$  versus standard treatment in critically ill infants and children with wheezy chest.

**Methodology:** Randomized controlled trial comprised 81 patients suffering from wheezy chest divided into 3 groups. In addition to bronchodilators and systemic steroids,  $MgSO_4$  was given by inhalation in Group A, intravenously in Group B, and Group C received placebo. The improvement in our cases was determined by clinical respiratory score (CRS), ventilator setting and arterial blood gases (ABGs) before and after treatment.

**Results:** Median age was 11 months, mean weight 9.3kg and the median of SOFA score was one. After treatment: There was significant improvement of CRS in the three groups. In group A, there was significant reduction in ventilator rate (p=0.017) and improvement of arterial/inspired oxygen ratio (p=0.0056). In group B better mean arterial pH was noted (p=0.009).

**Conclusion:** Magnesium sulphate is a safe and beneficial adjuvant therapy in addition to standard treatment in critically ill infants and children with wheezy chest.

## **Biography**

Hanaa I Rady is working as an Associate Professor of Pediatrics and Pediatric Intensive Care, and is the Deputy Director of Children University Pediatric Hospital, AbolRish, Cairo University. She is the Director of PICU of the 7th floor (21 beds). She has completed her MSc and MD from Cairo University in the year 2005 and 2008 respectively. She has published over 18 publications in reputed journals.

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