



## Lung ultrasound-guided Bronchoalveolar Lavage to Treat Uninflated Pulmonary Disease of the Newborn

**Jing Liu**

*Director of Department of Neonatology and NICU, China.*

### Abstract:

Uninflated lung disease (UnILD) refers to atelectasis as a major pathologic lesion in the lung tissue, which mainly appearances of large area consolidations under lung ultrasound (LUS). Clinically, UnILDs primarily include pulmonary atelectasis of the newborn (PAN), severe pneumonia, and meconium aspiration syndrome (MAS). UnILDs are common diseases in newborn infants and the major reasons for acute respiratory deterioration, a prolonged hospitalization, and difficulties in weaning from mechanical ventilation. From January, 2014 to October, 2019, we conduct bronchoalveolar lavage (BAL) to treat neonatal UnILDs under the guidance of LUS and got excellent results. A mong of total of 745 patients, including PNA 201 cases, severe pneumonia 329 cases and MAS 215 cases. The results that Invasive ventilator use rate significant decreased ( $p < 0.01$ ), the duration required to receive invasive ventilator treatment significant reduced ( $p < 0.01$ ), the length of hospitalization significant decreased ( $p < 0.01$ ) and the hospitalization expenses significant decreased ( $p < 0.05$ ). All patients had stable vital signs during lavage and no adverse side effects were observed. So we concluded that under LUS monitoring, BAL has a significant effect on UnILDs.

### Biography:

Prof. Dr. Jing Liu is the Director of Department of Neonatology and NICU, Beijing Chaoyang District Maternal and Child Health Care Hospital and the Neonatal Lung Ultrasound Training Base In China. He is good at neonatal intensive critical care, neonatal brain ultrasound and lung ultrasound. His academic positions include the Associate Chairman of Chinese Neonatologist Association and the Editorial members of more than 30 Chinese and English Journals. Dr. Liu Jing has published more than 300 papers, over 12 books and Chapters in Books, and has won 12 awards for science and technology of the government of China. Email: liujingbj@live.cn.

### Recent Publications:

1. Liu J, Ren XL, Fu W, et al. Bronchoalveolar Lavage for the Treatment of Neonatal Pulmonary Atelectasis under Lung



Ultrasound Monitoring. *The Journal of Maternal-Fetal & Neonatal Medicine*, 30(19):2362- 2366

2. Qiu RX, Ren XL, Liu J, et al. Bronchoalveolar Lavage to Treat Neonatal Meconium Aspiration Syndrome Under Monitoring of Lung Ultrasound Based on a Prospective Case Series Study. *Iran J Pediatr*, 2019; 29(4):e90012
3. Liu J, Xia RM, Ren XL, et al. The new application of point-of-care lung ultrasound in guiding or assisting neonatal severe lung disease treatment based on a case series, *The Journal of Maternal-Fetal & Neonatal Medicine*, DOI:10.1080/14767058.2019.1590332
4. Jiaye Xie, Jan-Niklas Boyn, Alexander S. Filatov, Andrew J. McNeece, David A. Mazziotti, John S. Anderson, Redox, transmetalation, and stacking properties of tetrathiafulvalene-2,3,6,7-tetrathiolate bridged tin, nickel, and palladium compounds, *Chemical Science*, 10.1039/C9SC04381K, (2020).
5. Wu-Juan Sun, Lei-Lei Li, Xiang-Yu Liu, Shuang Liu, Cong-Yu Ke, Qun-Zheng Zhang, Xun-Li Zhang, A 3D Cu(II) tetrazolate coordination polymer based on pentanuclear units with a large coercive field, *Dalton Transactions*, 10.1039/C9DT04113C, (2020).

**2nd International Conference on Respiratory Disease & Care; April 19-20, 2020; Berlin, Germany**

**Citation:** Liu J; Lung ultrasound-guided Bronchoalveolar Lavage to Treat Uninflated Pulmonary Disease of the Newborn, *Respiratory Disease 2020*, April 21, 2020; Singapore City, Singapore.