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Journal club

Inhaled nitric oxide does not prevent bronchopulmonary dysplasia

The use of nitric oxide in premature infants at risk of developing bronchopulmonary dysplasia is controversial, although it improves gas exchange in animal models. This study tested the hypothesis that inhaled low concentration nitric oxide started early in babies with mild respiratory failure reduces the incidence of bronchopulmonary dysplasia.

Eight hundred preterm infants with a gestational age at birth between 24 and 29 weeks, weighing at least 500 g, requiring surfactant or continuous positive airway pressure for respiratory distress within 24 h of birth were included in this double-blind, multicentre randomised controlled trial. Three hundred and ninety-nine infants were randomly assigned to low-dose inhaled nitric oxide and 401 to placebo gas for a minimum of seven and a maximum of 21 days.

Treatment with inhaled nitric oxide and placebo did not result in significant differences in survival of infants without the development of bronchopulmonary dysplasia or in the development of bronchopulmonary dysplasia.

This study showed no benefit with low-dose inhaled nitric oxide as a preventive treatment strategy in premature babies at risk of developing bronchopulmonary dysplasia.

► **Mercier JC**, Hummler H, Durrmeyer X, *et al*; for the EUNO Study Group. Inhaled nitric oxide for prevention of bronchopulmonary dysplasia in premature babies (EUNO): a randomised controlled trial. *Lancet* 2010;**376**:346–54.

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