

Does early supplementation of vitamin A show good efficacy on the prevention of bronchopulmonary dysplasia?

Jiangfeng Wu^, Peiwen Wang, Weiqiang Bao, Jingwen Zhang, Yun Jin

Department of Ultrasound, The Affiliated Dongyang Hospital of Wenzhou Medical University, Dongyang, China

Correspondence to: Jiangfeng Wu. Department of Ultrasound, The Affiliated Dongyang Hospital of Wenzhou Medical University, No. 60 Wuning West Road, Dongyang, 322100, China. Email: wjfhospital@163.com.

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We read with great interest the recent published study by Huang and colleagues entitled "The effects of early vitamin A supplementation on the prevention and treatment of bronchopulmonary dysplasia (BPD) in premature infants: a systematic review and meta-analysis" (1). They found that early supplementation of vitamin A can prevent and treat BPD in premature infants. We appreciate Huang and colleagues for the valuable study, however, after a careful learning of the literature, we would like to pay attention to some important missing aspects in the study.

First, in the results section of the abstract, the outcome indicators such as 28-day oxygen uptake rate, 36-week survival rate, incidence of patent ductus arteriosus, days of mechanical ventilation, and 28-day ventilator use were not statistically significant between experimental group and control group because of P>0.05. Therefore, the conclusion that early supplementation of vitamin A can prevent and treat BPD in premature infants might not be reliable.

Second, the effect size of the BPD incidence was odds ratio (OR) revealed in figure 4. In any case, the value of OR can never be negative, so the pooled OR of BPD incidence (-0.71, 95% CI: -0.34 to 0.00) was calculated by mistake and should be further revised.

Finally, in figure 6, the meta-analysis on the 36-week survival rate was performed by using a random effect model. However, the enrolled articles were considered to be homogeneous because of P=0.51 and $I^2=0\%$. We believe that the fixed effect model should be adopted actually.

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Footnote

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[^] ORCID: 0000-0002-5036-799X.

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A supplementation on the prevention and treatment of bronchopulmonary dysplasia in premature infants: a systematic review and meta-analysis. Transl Pediatr 2021;10:3218-29.