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Title: Corticosteroids for preventing chronic lung disease in very low birth weight preterm neonates-are they useful?

Dr. Oleksandr 33093 Mazulov avmazulov@gmail.com MD ¹, Prof. Olga 33094 Yablon oyablon@gmail.com MD ¹, Konstantin 33095 Bertsun avmazulov@gmail.com MD ² and Evgeny 33096 Vzhetsion avmazulov@gmail.com MD ². ¹ Pediatrics 1, Vinnitsa Memorial Medical University, Vinnitsa, Ukraine, 21000 and ² Neonatal Intensive Care, Vinnitsa Children's Regional Hospital, Vinnitsa, Ukraine .

Body: Introduction. Chronic lung disease (CLD) remains an important cause of mortality and morbidity in preterm infants and inflammation plays an important role in its pathogenesis. The use of corticosteroids may decrease the inflammatory process. Aims and objectives. To determine the effect of inhaled and systemic corticosteroids during the first two weeks of life on preventing CLD in ventilated very low birth weight (VLBW) infants. Methods. It was open-labeled single-centered trial. We compare an effect of Minidex mode (0.05 mg/kg) in 48 VLBW infants and inhalation of Budesonide (0.5 mcg/day) via nebulizer in 54 in VLBW infants in the first two weeks of life with assisted ventilation. In comparative group with 25 VLBW infants we used conventional treatment regime. Outcomes including CLD at 28 days or 36 weeks postmenstrual age (PMA) and time of extubation. Results. The number of infants with CLD at 36 weeks PMA in the inhaled steroid group was 4 [RR 0.463 (95% CI 0.126 to 1.703); Relative Risk Reduction 53.7% (95% CI -70.3 to 87.4)]. The number of CLD at 36 weeks PMA among infants in the Minidex group was 3 [RR 0.391 (95% CI 0.095 to 1.611); Relative Risk Reduction 60.9% (95% CI -61.1 to 90.5)]. The duration of mechanical ventilation was significantly shorter in the both steroid groups as compared to the control group (MD 4 days (95% CI 0.2 to 8)). Conclusions. Our study found no significant difference in CLD at 28 days or 36 weeks of PMA in VLBW infants received different modes of corticosteroids than in control group. The time of extubation was significantly shorter in the both steroid groups as compared to the control group.