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Effectiveness and safety of repeat dexamethasone for bronchopulmonary dysplasia

Christian Oliveros

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Effectiveness and Safety of Repeat Dexamethasone for Bronchopulmonary Dysplasia

Christian Oliveros MD, Anastasia Quiqley, Kevin Varghese, Greta Ciccolari-Micaldi, An-Lin Cheng PhD, Michael Norberg, William E. Truog MD, and Alain Cuna MD,

Children's Mercy Kansas City

Objectives

- To describe effectiveness of repeat dexamethasone treatment for bronchopulmonary dysplasia (BPD) and to evaluate potential detrimental effects on growth and neurodevelopment.

Methods

- 10-year single-center observational study
- Infants <30 weeks' gestational age at birth treated with 1 or 2 courses of systemic dexamethasone for BPD
- Effectiveness was defined as step-down in mode of respiratory support from baseline by end of treatment.
- Adverse effects on growth z-scores and Bayley-III neurodevelopment scores were analyzed and compared to a cohort of untreated controls.

Results

Figure 1

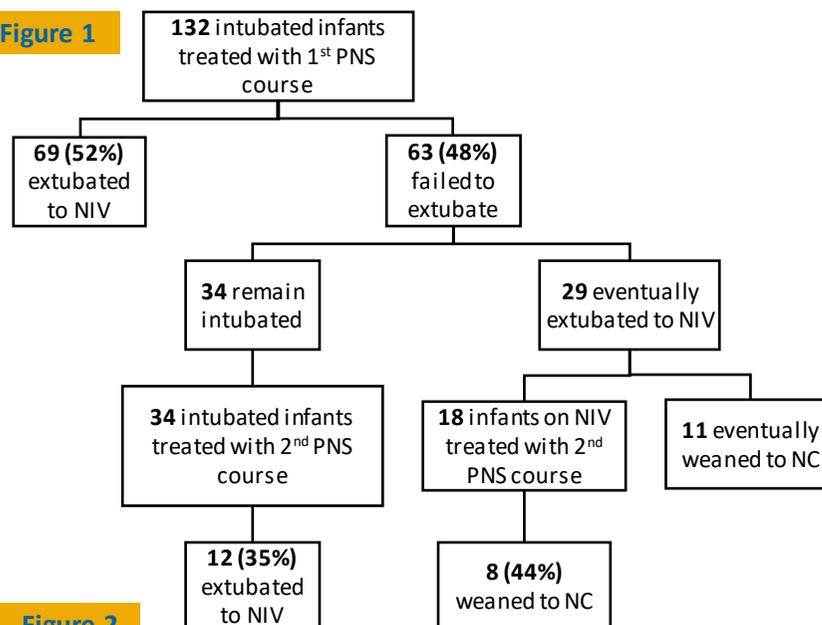
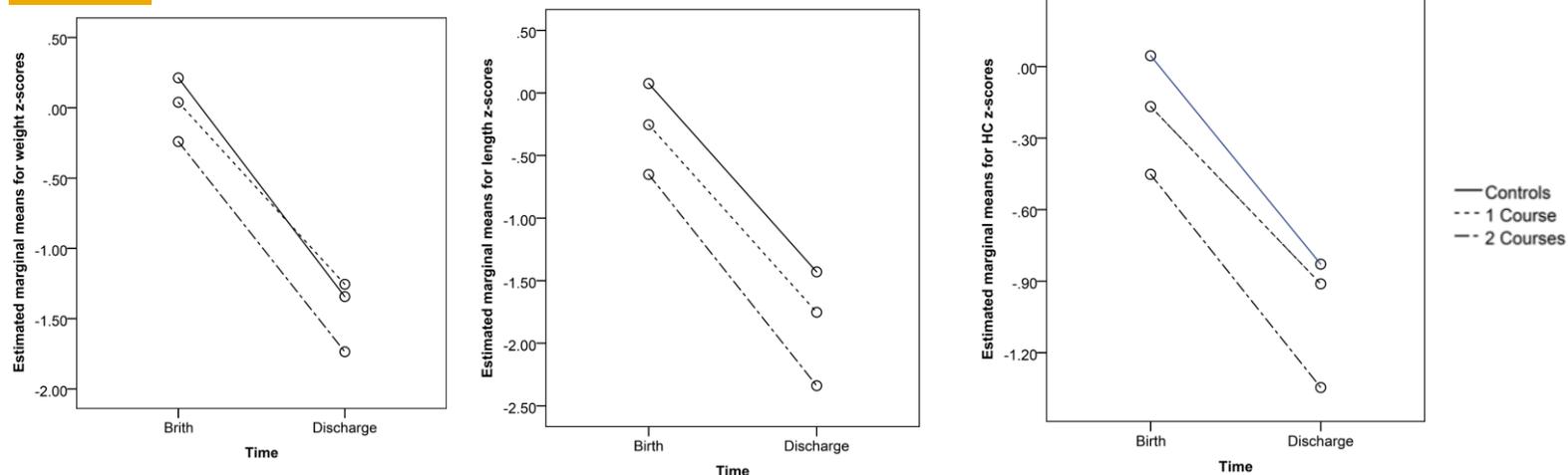


Figure 2



- Compared to untreated controls, repeat dexamethasone treatment was associated with lower Bayley cognitive scores (76.7 vs 86.4) and motor scores (71.7 vs 84.6) but this association was no longer significant after adjusting for confounders.

Conclusions

- A second course of dexamethasone for BPD was less effective in weaning respiratory support compared to the initial course but was not associated with detrimental effects on growth or neurodevelopment.