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CORRESPONDENCE

Adding Hydrocortisone as 1st Line of Inotropic Treatment for Hypotension in Very Low Birth Weight Infants: Authors' Reply

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To the Editor: We are thankful for the comments by Hakan et al. regarding our study [1].

Regarding the diagnosis of hypotension, we agree with that the diagnosis should not be based on the blood pressure reading alone. In the study we enroled newborns with Invasive mean blood pressure (MBP) < GA (Gestational Age) in 3 consecutive measurements that the physician decided that should be treated with inotrops. The low blood pressure measurement was necessary but not sufficient for the decision. Due to the lack of one or a combination of clinical signs that clearly define the cutoff for hypotension that needs treatment [2], we left it to the physician to decide. Currently, there is no validated clinical scoring system available to diagnose shock in preterms, and the assessment of capillary refill time, color, heart rate, blood pressure, and urine output are not specific in identifying poor perfusion, especially on the first day of life [2]. By avoiding strict guidelines for the decision on treatment once MBP < GA and letting the physician to add his clinical assessment for the decision making, we believe that we are reflecting the reality of decision making on the treatment of hypotension in extreme premature infants both in ours as in many other units.

Regarding adverse effects in preterm infants, hydrocortisone, either for hypotension [3] or bronchopulmonary dysplasia [4], may improve some primary outcomes, but also reported to have some adverse effects. Regarding its early use, Watterberg et al. demonstrated increased risk for intestinal perforation. This study, and other studies mentioned by Hakan et al. used a higher cumulative doses and a longer course compared to our study [4]. Furthermore, recent study demonstrated relation between hypoadrenalism and hypotension in hypotensive premature newborns [5]. This suggests the potential importance and benefit of using steroids as replacement therapy and not only as vasopressor in this group.

Finally, as we mentioned in our article, in order to establish our observation of beneficence of adding hydrocortisone to the 1st line of treatment in hypotension and to rule out adverse outcome of this treatment, a larger, multi center study should be performed.

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Conflict of Interest None.

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