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## Intravenous Ondansetron to Reduce Intravenous Rehydration – Will it be Successful?

We read with interest the research article by Rang, *et al.* [1] published recently in *Indian Pediatrics*. Though the article is very informative, we have some concerns:

It is clearly established that ondansetron is an effective antiemetic [2]; hence, comparing the efficacy of intravenous (IV) ondansetron with a placebo in reducing vomiting episodes and the need for IV rehydration is unfair. The results reflected are expected (*e.g.*, comparing vomiting episodes at 4, 8 and 24 hours between the ondansetron group and placebo groups). To put this into perspective, it is like comparing reduction in fever in two groups; to one group after giving paracetamol and the other after administering a placebo, and saying that there was a significant decrease in fever in the subjects in the paracetamol group. Instead, it would have been more informative and useful, if the authors had compared two different routes of administration of ondansetron.

The process of double blinding is not clear as a statement in the article mentions that “the study physician opened the envelope to determine which treatment the subject would receive.” It is desirable to

describe the process of blinding by explaining who was blinded rather than use terms like double blind or triple blind.

The Oral rehydration solution (ORS) administration must also have been a challenge for the caregivers/hospital staff who were providing ORS at 0.5 mL/kg every 2 minutes. The question that comes to our mind is as to how it was adhered to, especially in these young children? Rehydration has been mentioned as ‘adequate’ when the child consumed  $\geq 40$  mL/kg of ORS solution, but the time over which it was consumed has not been elucidated. Furthermore, there has been no mention on the day from the start of symptoms that the patients were recruited into the study. This information is important, as those included later may have responded differently from those presenting earlier. Similarly, the work-up for etiology of diarrhea was either not done or was not provided, and the definition of ‘persistent vomiting’ that prompted the physician to advise IV rehydration has also not been mentioned.

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#### **AUTHOR'S REPLY**

Study design varies according to the purpose of the study. The main outcome of this study [1] was to assess the efficacy of IV ondansetron in decreasing the need of infusion more than its antiemetic effects; thus, ondansetron was compared with placebo instead of comparison with oral formulation or other antiemetic drugs.

Persistent vomiting in this context meant vomiting

several times. However, administration of intravenous fluids depended on the treating physician's decision.

It is true that in young children, monitoring and assessment of fluid intake are difficult. After 4 hour admission, if the child was alert and had no signs of dehydration, it was considered as adequate rehydration.

All of cases included in this study were having acute watery, non-bloody diarrhea; 44.3% of cases caused by rotavirus, and there was no difference between the two groups. The duration from having the first symptom of diarrhea to hospitalization was similar between the two groups. The median (IQR) duration of diarrhea before admission was 20 (16, 20) hours in the ondansetron group, compared with 18 (12, 22) in the placebo group ( $P=0.760$ ).

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