Correspondence to Levetiracetam in Neonatal Seizures as First-Line Treatment

Dear Editor

We read with interest the comments by Mandal and Sahi[1] on our paper entitled: “Levetiracetam in neonatal seizures as first-line treatment: a prospective study”[2] and we would like to clarify those questions addressed to our paper.

Considering the literature data on the use of phenobarbital in neonates and its adverse effects as proapoptotic agent,[3] the main aim of our study was to demonstrate the efficacy and safe profile of levetiracetam in the treatment of neonatal seizures. In this regard, levetiracetam has got a safer profile than phenobarbital, considering its neuroprotective action, and it was used safely as a first-line treatment in our neonates, replacing the standard use of phenobarbital.

As far as the abstract is concerned, the study period refers from July 2015 to July 2016 (1 year of follow-up). There was a typing error in the abstract.

As far as the methods section is concerned, in our study, we included all patients with seizures. Nevertheless, as Mandal and Sahi should know, children with hypoxic–ischemic disease may present subclinical seizures called “autonomic seizures,” a subgroup of subtle seizures, which may be evident neither on clinical evaluation nor on electroencephalography (EEG). This is the reason why we detailed this group of patients.

Moreover, the inclusion in our study was consecutive and casual. This kind of sampling did not give us any bias limits because the sample was not accurately selected as the authors are accusing in their letter. An accurate selection of patients would have given targeted results, and this was not our intent. In our study, all patients with seizures during the study period were treated with levetiracetam as a first-line anticonvulsant agent.

In Figure 2, tonic–clonic seizures do not represent an electroencephalographic diagnosis but only a clinical diagnosis. This diagnosis was performed on a clinical basis alone by neonatologists of our neonatal intensive care unit. Figure 2 explains that among 50% of patients with clinically evident tonic–clonic seizures, results from interictal EEG showed 12.5% delta brushes, 12.5% cortical nonspecific sufferance, and 25% centrotemporal spikes. The figure is explained in detail in the text. We suggest the editor to detail this explanation in the Figure 2 legend, to avoid further misunderstanding.

As far as results of magnetic resonance imaging (MRI) are concerned, we detailed that “approximately” 40% of patients had a positive MRI, to stress that less than a half had brain cerebral diseases.

No subtle seizures were evidenced because they are usually difficult to detect both on a clinical point of view and on an electroencephalographic point of view, and they often require a very long EEG monitoring to be detected. We only reported clinical seizures as described by our neonatologists on clinical evidence. And in our study, our neonatologists did not detect any subtle seizures. Moreover, we reported only intercritical EEGs because we only could detect critical events in two patients.

We hope that these details can improve the reading of our paper. We also thank Mandal and Sahi for the interest they showed in our paper, suggesting further clinical trials to reinforce the results we described in our paper.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Raffaele Falsaperla, Giovanna Vitaliti

Department of Paediatrics, General Paediatrics Operative Unit, Policlinico-Vittorio Emanuele University Hospital, University of Catania, Catania, Italy

Address for correspondence:
Prof. Raffaele Falsaperla,
Unit of Pediatrics and Pediatric Emergency,
Policlinico-Vittorio Emanuele University Hospital,
University of Catania,
Catania, Italy.
E-mail: raffaelefalsaperla@hotmail.com

REFERENCES

1. Mandal A, Sahi PK. Levetiracetam as a first-line agent for neonatal seizure. J Pediatr Neurosci 2017;12:395-6.
2. Falsaperla R, Vitaliti G, Mauceri L, Romano C, Pavone P, Motamed-Gorji N, et al. Levetiracetam in neonatal seizures as first-line treatment: a prospective study. J Pediatr Neurosci 2017;12:24-8.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com
Dear Editor

The seriousness of television tip-over accidents as a cause of head injury in children is not well appreciated. It is the 15th leading cause of childhood death in Canada following trauma [1] and has been cited third in the list of the "top five hidden household hazards" by the United States Consumer Product Safety Commission.[2] There have been two prior reports from India[3,4] dealing with this topic but countrywide data on the same is lacking.

We encountered seven admitted cases of head injuries in children because of television toppling on them over a 13-year period (2004–2017). All the cases in our series were male. In two of the cases, the event leading to the tip over was unwitnessed, whereas in the remaining pushing mobile television stands and pulling at screens covering the television sets or cables attached to them have been involved in causation. In three cases, cathode-ray television sets were involved, whereas flat-screen televisions were involved in the remaining.

| Case | Age/sex | Event causing tip over and TV type | Findings | Condition at presentation | Treatment | Outcome |
|------|---------|----------------------------------|----------|--------------------------|-----------|---------|
| 1    | 3/M     | Pushing mobile TV, CRTV         | Subgaleal hematoma with linear skull fracture | Alert, accepting feeds, calling out to mother, moving all limbs. Had episodic vomiting | Conservative | Good    |
| 2    | 2/M     | Trying to pull screen of TV, CRTV | Left frontotemporal acute subdural hematoma | Drowsy with no eye opening, crying on pain, withdraws limb on nail bed pain | Craniotomy and removal of subdural hematoma | Good but had seizures after 3 years, controlled with medications |
| 3    | 3/M     | Unwitnessed, FPTV               | No radiological abnormality | Alert and babbling, spontaneous eye opening and limb movements | Conservative | Good    |
| 4    | 2/M     | Unwitnessed, CRTV               | Linear skull fracture with underlying contusion | Crying loudly, spontaneous eye opening and limb movements. Episodic vomiting | Conservative | Good    |
| 5    | 5/M     | Pulled TV off stand, FPTV       | Linear skull fracture with right frontotemporal acute extradural hematoma | Obeying commands, moving all four limbs, verbalizing well, headache and vomiting. Prefers to keep eyes closed unless asked to open | Craniotomy and removal of extradural hematoma | Good    |
| 6    | 4/M     | Trying to pull screen of TV, FPTV | Linear skull fracture | Crying but obeying commands and moving all four limbs | Conservative | Good    |
| 7    | 3/M     | Pulling the HDMI cable off a TV mounted on a wall, FPTV | Subgaleal hematoma | Alert and babbling, spontaneous eye opening and limb movements | Conservative | Good    |

M = male, CRTV = cathode-ray television, FPTV = flat-panel television, HDMI = high-definition multimedia interface, TV = television