Letters to the Editor

The Editor welcomes submissions for possible publication in the Letters to the Editor section that consist of commentary on an article published in the Journal or other relevant issues. Authors should:

- Include no more than 500 words of text, three authors, and five references
- Type with double-spacing
- See <http://jtcvs.ctsnetjournals.org/misc/ifa.htm> for detailed submission instructions.
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Letters commenting on an article published in the JTCVS will be considered if they are received within 6 weeks of the time the article was published. Authors of the article being commented on will be given an opportunity to offer a timely response (2 weeks) to the letter. Authors of letters will be notified that the letter has been received. Unpublished letters cannot be returned.

Electrographic seizure after neonatal and infant cardiac surgery

To the Editor:

We read with interest the article by Gaynor and associates,¹ titled "Relationship of Postoperative Electrographic Seizure to Neurodevelopmental Outcome at 1 Year of Age After Neonatal and Infant Cardiac Surgery." We appreciate the effort and hard work of the authors on this complex neurophysiologic phenomenon.

In this study postoperative electroencephalographic (EEG) seizures have been identified in a small number of patients (15/144, 13%), with absolutely no seizure activity reported in patients with transposition of the great arteries and ventricular septal defect. The latter are considered among the high-risk groups.^{2,3} This observation may be quite startling or may be purely coincidental.

The authors did not mention the preoperative seizure history or duration of seizure activity⁴ (which can significantly contribute to seizure-related neuronal death), and they did not discuss whether the EEG examiners were blinded to the fact that the child had a seizure in the postoperative period.

Gaynor and associates rightly mentioned that antiepileptic medication given to all the patients was not standardized and there was no control group, so it is not possible to determine conclusively whether treatment affected the neurodevelopmental outcome.

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Reply to the Editor:

We appreciate the comments by Hashmi, Hanif, and O'Reilly concerning our recent article, titled "The Relationship of Postoperative Electrographic Seizures to Neurodevelopmental Outcome at 1 Year of Age After Neonatal and Infant Cardiac Surgery."¹ They raised several questions concerning including (1) preoperative seizure history; (2) the lack of seizure activity in patients with transposition of the great arteries (TGA) with a ventricular septal defect (VSD), previously considered a high-risk group for postoperative seizures; (3) duration of seizure activity; and (4) whether or not the electroencephalographic (EEG) examiners were blinded to the fact that the child had a seizure in the postoperative period. The patients in this study were a subset of a larger group of patients who underwent 48-hour EEG monitoring after cardiac surgery. We² have previously reported outcomes for the larger group, including the incidence of postoperative seizures and risk factors for postoperative seizures. No seizures were identified on the preoperative EEGs in that study and no infant was suspected to have had seizures by clinical observation. Postoperative seizures were most common in patients with hypoplastic left heart syndrome or a variant. EEG seizure activity was identified in only 1 of 12 patients with TGA (with or