

Epidural test dose and tachycardia

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To the Editor:

We read with interest the case report of Mishra et al. [1], who described the development of loss of consciousness and generalized convulsions associated with sinus bradycardia and transient hypoxia following an epidural test dose (3 ml lidocaine 1.5% with epinephrine 1:200,000).

It is well known that central nervous system (CNS) toxicity following accidental intravascular injection of local anesthetic (LA) is mostly related to the proximity of the injection site to the CNS rather than the LA dose [2]. However, some concern has been raised. Although the incidence of tachycardia is not always associated with CNS symptoms, the occurrence of generalized convulsions and circulatory collapse following accidental intravascular injection of the adrenaline added to lidocaine would lead to tachycardia instead of bradycardia, which has been reported by the authors, especially that the first aim of epinephrine

coadministration is to rule out inadvertent intravascular catheter misplacement.

On the other hand, as no previous study assessed the minimum dosage of epinephrine to elicit tachycardia following accidental intravascular epidural injection, it is possible that the 15 µg epinephrine injectate that was used in the test dose was not sufficient to increase the heart rate.

References

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2. Stoneham MD, Bree SE. Epileptic seizure during awake carotid endarterectomy. *Anesth Analg.* 1999;89:885–6.

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