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Letter to the Editor

Lateral tongue biting versus biting at the tip of the tongue in differentiating between epileptic seizures and syncope

We thank Dr. Akor and colleagues for their interest in our work. The main purpose of the systematic review we conducted was to evaluate the diagnostic utility of tongue biting in the differential diagnosis between epileptic seizures and syncope.¹ Such an approach proved useful in providing evidence-based information on the diagnostic role of other clinical findings (tongue biting, urinary incontinence, ictal eye closure) in differentiating between epileptic seizures, syncope and psychogenic non-epileptic events.²

The additional data provided by Dr. Akor and coworkers are of extreme interest, given the limited data on this topic in the literature.³ We therefore included these data in a pooled analysis, obtaining following pooled accuracy measures for tongue biting (regardless of the region involved) in the diagnosis of epileptic seizure: sensitivity 16.8% (95% CI 12.5–22.2), specificity 98.2% (95% CI 95.8–99.2%), positive likelihood ratio 9.111 (pLR) (95% CI 3.652–22.734), negative likelihood ratio (nLR) 0.848 (95% CI 0.798–0.9).

Interestingly, thanks to the provided data,³ it is now possible to draw some conclusions on the diagnostic role of lateral tongue biting and biting at the tip of the tongue in differentiating between epileptic seizures and syncope, including the study of Benbadis et al.,⁴ and that of Akor et al.³ The pooled accuracy measure of biting involving the tip of the tongue in the diagnosis of syncope are: sensitivity 0.11 (95% CI 0.04–0.36), specificity 99.8 (95% CI 98–1), pLR 5.32 (0.257–110.185), nLR 0.991 (0.976–1.006). Conversely, the pooled accuracy measure of lateral tongue biting in the diagnosis of epileptic seizures is: sensitivity 11.3 (95% CI 0.76–1.64), specificity 99.8% (95% CI 97.9–1), pLR 49.275 (95% CI 3.009–806.972), nLR 0.89 (0.846–0.935).

As these results indicate, the presence of a lateral TB greatly increases the chance that the patient had an epileptic seizure, whereas a biting at the tip of the tongue is more indicative of a syncopal episode. However, the extremely wide 95% CI for pLR indicate that further studies with larger sample size are required to provide definite evidence-based conclusions on the role of TB as diagnostic discriminator between epileptic seizures and syncope.

Disclosure

None.

Conflict of interest

None.

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