Other Possible Methods in the Differential Diagnosis of Epileptic and Non-Epileptic Seizures

Epileptik ve Epileptik Olmayan Nöbetlerin Ayırıcı Tanısında Kullanılan Diğer Olası Yöntemler

Mehmet YÜCEL¹, Hakan AKGÜN², Oğuzhan ÖZ³, Şeref DEMİRKAYA³

¹Kasımpaşa Military Hospital Yeşilyurt Polyclinics, Clinic of Neurology, İstanbul, Turkey

²Etmesgut Military Hospital, Clinic of Neurology, Ankara, Turkey

³Gülhane Military Medical Academy, Department of Neurology, Ankara, Turkey

Dear Editor,

We have carefully read the review of Verrotti et al. analyzing the differences between epileptic and non-epileptic seizures (1). It is of utmost difficulty for every clinician working in neurology outpatient clinics to differentiate epileptic patients from those presenting with syncope and other differential diagnostic possibilities. Therefore, we believe that the article published in your journal reviewing many original articles would be of great assistance. The authors have systematically reviewed the subject and presented practical information that would be useful to the clinicians. They first cited the frequency of non-epileptic psychogenic seizures in epileptic patients and then presented some clinical clues.

The onset of the seizure used in the differential diagnosis of syncope, movement synchronization, types of behavioral changes, vocalization, all mentioned by the authors, could often not be seen by clinicians and the information obtained from the patients' relatives is mostly insufficient. The clinicians can gain information on the seizure semiology by EEG monitoring or if a video recording of the seizure was obtained by the patients' relatives. Laboratory techniques, such as video-electroencephalographic (EEG) monitoring help clinicians and video EEG monitoring is accepted as the gold standard in the literature for the differentiation of epileptic and non-epileptic seizures. Furthermore, techniques other than EEG used in the differentiation have been reported in the relevant literature. In a multicenter study conducted by Aydın et al., it was stated that increased serum prolactin and nesfatin-1 levels and decreased ghrelin concentrations can be used in the differentiating epileptic seizures from non-epileptic seizures (2). In

a review by Cragar et al., it was stated that serum prolactin levels can be used as a marker in the differentiation if measured in the first 30 minutes (3). Odabaşı et al. also reported that serum prolactin levels were found to be high after epileptic seizures (4). Moreover, in a study by Ettinger et al., it was found that post-ictal SPECT is a potential method to be used in differentiating epileptic from non-epileptic seizures (5). Verrotti et al. did not report these studies in their review. There is a need for larger studies and stronger evidence to emphasize the importance of these methods. We believe that in the future these laboratory investigations would be of benefit to the clinicians in some selected cases. The aim of this letter was to remind the readers of the presence of these possible methods awaiting further confirmation for their diagnostic value in the differential diagnosis of epileptic and non-epileptic seizures.

References

1. Verrotti A, Pavone P, Agostinelli S, Nanni G, Gobbi G. Psychogenic Non-Epileptic Seizures: A Diagnostic Problem Difficult to Solve in Clinical Practice. Archives of Neuropsychiatry 2012; 49:243-247.
2. Aydın S, Dag E, Ozkan Y, Arslan O, Koc G, Bek S, Kirbas S, Kasikci T, Abasli D, Gokcil Z, Odabasi Z, Catak Z. Time-dependent changes in the serum levels of prolactin, nesfatin-1 and ghrelin as a marker of epileptic attacks in young male patients. Peptides 2011; 32:1276-1280.
3. Cragar DE, Berry DT, Fakhoury TA, Cibula JE, Schmitt FA. A review of diagnostic techniques in the differential diagnosis of epileptic and nonepileptic seizures. Neuropsychol Rev 2002; 12:31-64.
4. Odabaşı Z, Kütükçü Y, Özgüven MA, Gökçil Z, Yardım M. Epileptik ve psikojen bayılması olan hastalarda serum prolaktin düzeyinin tanıya katkısı. Nörolojik Bilimler Dergisi 1996; 13:15-20.
5. Ettinger AB, Coyle PK, Jandorf L, Cabahug CJ, Oster ZH, Atkins HL, Weisbrot DM, Devinsky O. Postictal SPECT in epileptic versus nonepileptic seizures. Journal of Epilepsy 1998; 11:67-73.

Correspondence Address/Yazışma Adresi

Mehmet Yücel, Kasımpaşa Asker Hastanesi, Yeşilyurt Polikliniği, Nöroloji Kliniği, İstanbul, Türkiye

Gsm: +90 532 647 84 88 E-mail: drmehmetyucel@yahoo.com.tr Received/Geliş tarihi: 21.02.2013 Accepted/Kabul tarihi: 01.03.2013

©Copyright 2014 by Turkish Association of Neuropsychiatry / ©Telif Hakkı 2014 Türk Nöropsikiyatri Derneği