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Editorial

A Necessary Reflection on the Comprehensive Care of Patients with Epilepsy

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Epilepsy is a disease that represents a public health problem, which needs comprehensive care [1,2]. It is considered to affect 1 - 2% of the population [1-6], with an estimated 50 to 69 million people suffering from this disease, the majority living in developing countries, where quality of life is worse [2].

This disease, in turn, can be a cause of death, a danger that is not taken into account and could be preventable [7] and, therefore, can reduce the life expectancy of patients [8].

Most authors agree that between 70 - 80% of all epileptics are controlled with medical treatment and 20 - 30% are chronic refractory, being considered chronic epilepsy that is difficult to control [9].

Pharmacological resistance is a major problem for the patient, with devastating consequences, including seizure persistence and morbidity derived from epilepsy, medication, social isolation, unemployment and decreased quality of life [10].

Intractable chronic epilepsy, in turn, carries a poor prognosis, with a mortality rate of 1/200 inhabitants/year as a direct consequence of seizures [11], in addition to an increased risk of sudden death, as well as an important health cost that derives from the use of new and multiple medications and from an increased need for health care [10].

For all these reasons, the comprehensive management of the patient suffering from epilepsy is essential [2], which is why we have, in turn, previously indicated the considerations in relation to the care of the patient with epilepsy, having systematized their care in the following four questions:

Are we dealing with a patient with epilepsy? What type of seizure/epilepsy do you have? What is the cause of epilepsy? What therapeutic behavior should we follow? [12,13].

However, making a detailed analysis, there are some considerations that we must add to these questions.

It is no less true that a significant aspect is being able to determine if we are really dealing with a patient with epilepsy, since we could make mistakes when diagnosing and treating and more than that, stigmatize a patient with a disease that he does not have. This is a difficult situation that the health professional faces in daily medical practice.

Conceptually, epilepsy has been described by Jackson and subsequently by the International League Against Epilepsy (ILAE), which was enriched thirty years later, with the definition of crisis and epilepsy according to the report of the 2005 working group [16-18] and more recently [19] by a group of experts from the ILAE, which considers by consensus that it is a disease whose brain, for whatever reason, shows a pathological and continuous tendency to suffer recurrent crises [20].

If we take into account the above, it is important to differentiate epileptic seizures from pseudo-seizures because [21,22] it can be misrecognized and therefore not establish treatment of the true pathology and the unnecessary risk of unnecessary adverse reactions.

In the positive diagnosis [20], the questioning is of relevant importance, with an adequate chronopathogram of the seizures and which, in our opinion, is the greatest bulwark available to the physician to discern between an epileptic seizure and one of another etiology. The first clinical symptoms frequently provide the most information regarding the zone of ictal and epileptogenic onset, as the initial symptomatogenic zone [18].

It is essential to insist on the semiology of epileptic seizures, since this can provide invaluable information on the ictal location and therefore on the lesional topography, which has not been insisted on in our previous articles.

The appropriate questioning depends on what can be defined, which neurological and non-neurological alterations can be confused with epilepsy [23].

The need for video- electroencephalogram (EEG) monitoring cannot be ignored, due to the importance of determining the presence of non-epileptic seizures of the psychogenic type, since it is considered that approximately 20 - 40% of patients admitted for evaluation, are diagnosed with this type of crisis [24,25].

The general physical and neurological examination [18] and the investigations can support the confirmation of the diagnosis, which must be suitably adapted to the patient's clinic.

In the differential diagnosis of transient events, it is necessary to specify that they are epileptic seizures and, of course, to distinguish between provoked epileptic seizures and a chronic epileptic condition [26,27].

Improper diagnosis in a patient with suspected epilepsy is a significant medical problem with unpredictable consequences. Common disorders, and even normal phenomena, can mimic seizures and, conversely, certain types of seizures can mimic the symptoms of other diseases. However, an erroneous diagnosis has serious repercussions, managing patients with inadequate treatments or even depriving them of specific therapies [28].

Epileptic seizure mimics have been defined by the ILAE as [29] clinical manifestations that are unrelated to an abnormal and excessive discharge of a series of brain neurons [30], which can also be considered in the differential diagnosis, including, in turn, in the analysis recurrent cerebral crises, among which hypoxic, toxic, psychic crises and sleep disorders are distinguished [31,32].

It is necessary not to consider an epileptic seizure as a non-epileptic paroxysmal event, nor this as a seizure event.

In relation to the question What type of seizure/epilepsy do you suffer from?, we must comment that epilepsy has always been defined by its most dramatic symptoms, among others, falls, motor activity or loss of consciousness [33-35].

The history of classifications has been largely based on keen observations and expert opinions, and several classifications of seizures, epilepsies, and epileptic syndromes have been put forward, a process concluding with the recent Operational Classification of Seizure Types [36-38].

The latest studies have shown that epilepsy is a disease of networks and not just a symptom of local brain abnormalities [39], and it is for this reason that seizures are thought to arise from neocortical, thalamocortical, limbic, and brainstem networks.

Like other authors, we suggest continuing to use the previous ILAE Classifications with some modifications, until new objectives are achieved and the new conceptions are incorporated into daily practice. In this modern era of harmonization, the amount of disharmony that exists in relation to the classification of this disease is surprising, for which it can be considered an unfinished business [40].

What is the cause of epilepsy? is another of the questions expressed [35,41].

The analysis of the etiology of this disease has gone through several periods and recently [41] the new report of the ILAE Commission on the Classification and terminology of epilepsies in 2013 was presented, which subdivides the etiology into a) genetic ; b) structural; c) metabolic; d) immunological: e) infectious; f) unknown (18.37).

It cannot be forgotten that the different causes of recurrent epileptic seizures differ in each age group [42-45].

The etiology of the disease is one of the important sections that we must take into consideration, in order to individualize the behavior and alleviate the suffering of the patient and her family. Approaching the etiology presupposes identifying the patients who can benefit from the treatments described so far [35].

However, this is an issue that is also open to debate and in which scientific advances in neuroscience will decide the future.

Last but not least, we are faced with management and ask ourselves: what therapeutic behavior should we follow?

After making the correct diagnosis of the disease, but before prescribing a specific antiseizure medication (ASM), the doctor must take into account a series of additional aspects. A complete understanding of these issues should allow for the best outcome for the patient, regardless of the drug or therapy chosen [46-48].

So, before we get into the complexities of treatment strategies, we need a brief reminder about the accuracy of the patient's diagnosis. Correct diagnosis is, after all, the foundation on which therapy is based, as misdiagnosis is likely to lead to insufficient and potentially harmful treatment [49].

This is a difficult topic, given that epilepsy is a heterogeneous set of syndromes with innumerable causes and a wide variety of clinical expressions, expressed by epileptic seizures.

Therefore, how are we going to make a correct diagnosis of the disease? We can only do this by recognizing that multiple diagnostic levels are present, and must be identified in each patient, which have been previously discussed [20,48]:

Once the patient's diagnosis is certain, what are the treatment topics that should be considered to optimize the results?

To this end, we suggested in previous articles that the treatment of patients with epilepsy can be summarized into four large groups [13]:

Prophylactic/preventive, Pharmacological, Non-pharmacological: surgery and alternative treatments and psychological/psychiatric management.

There are many discrepancies regarding the prophylaxis of epileptic seizures. Many authors consider that, if seizure activity occurs, prompt and effective treatment should be instituted, while others suggest prophylaxis in neurosurgical interventions, cranioencephalic trauma, brain tumor or metastasis, and cerebrovascular disease [20].

The care in patients with epilepsy is the prevention of new seizure events, which may, after all, lead to additional morbidity or even mortality.

The goal of treatment should be to maintain a normal lifestyle, preferably seizure-free and with minimal medication side effects.

In relation to pharmacotherapy, it should be kept in mind that therapy in this disease is still suppressive, symptomatic and not curative [48].

However, a review of the treatment of drugs used in epilepsy from 1909, the year the International League Against Epilepsy (ILAE) was founded, is described in the literature, in which the studies of Tracy Putnam (1894 - 1975) and H. Houston Merritt (1902 - 1978) marked the end of the empirical use of substances, in the search for new antiepileptic drugs [50,51].

The different reviews, in the respective period, detail the introduction of the different drugs/procedures, as well as [52] the antiseizure medication that are currently in active development [53] and in the experimental phase [54].

Like other authors, we are not satisfied with the advances in epileptology today and we must continue to search for effective therapy [48].

It is necessary to insist on the study of conventional animal models and explore other fields that include molecular research, and that, in addition, components with antiepileptogenic and neuroprotective properties are identified [55].

Genetic differences in patients could influence the response to treatment and open new expectations on the subject [56].

Non-pharmacological treatment modalities are also described in the literature, including receptive surgery, disconnection surgery, the most recent methods of neuromodulation [57], as well as other options to consider when the patient is not a candidate for any type of modality. surgical, such as the ketogenic and Atkins diets [12,58].

In our opinion, after a comprehensive approach to the patient, with all the aspects analyzed, it is necessary to take into account the possible prevention measures, such as the adequate control of the crises, the changes in lifestyles, the adequate use of antiseizure medication and surgery and other alternative methods to patients with criteria. Attention to psychosocial, cognitive, educational, and professional training aspects is an important part of comprehensive epilepsy care [49].

Psychiatric disorders must also be properly managed, including depression, psychosis, impulsiveness and possible suicides [2].

Notwithstanding this, the questions that we have scholastically suggested should include the need for an adequate semiological analysis of epileptic seizures and an approach to the topography of the lesion, closely related to the etiology of epileptic seizures/epilepsy/epilepsy syndrome.

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