

Involvement of Psychiatrists in Epilepsy Treatment Helps not only Neurologists but also Psychiatrists Themselves

Kousuke Kanemoto

Neuropsychiatric Department, Aichi Medical University, Japan

Corresponding author:

Kousuke Kanemoto

✉ fwkh2919@mb.infoweb.ne.jp

Neuropsychiatric Department, Aichi Medical University, Japan

Tel: 0561-62-3311

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How many psychiatrists in the world are now interested in epilepsy? Although the precise number is not known, undoubtedly those who are actively involved in epilepsy treatment constitute an overwhelming minority. In addition, the number of neurologists who are interested in psychiatric issues, though they are also few, is greater than the number of psychiatrists willing to join in epilepsy treatment. Until the middle of the 20th century, the boundary between neurology and psychiatry was not so strict, and every good psychiatrist was inevitably also a neuropsychiatrist who needed to be versed in brain issues. We need only to remember Wernicke, a founder of modern aphasiology as well as a pioneering investigator of depersonalization [1]. Furthermore, in Europe, the remnants of the traditional position of neuropsychiatrist clearly remain in related scientific journals such as *L'Encéphale*, *Nervenarzt*, and *Journal of Neurology, Neurosurgery Psychiatry*.

Why is epileptology a field of medicine in which a psychiatric approach is particularly needed? The primary reason is obvious. Twenty to thirty percent of patients with epilepsy are known to have miscellaneous psychiatric illnesses, thus involvement of psychiatrists is mandatory in serious cases. Among others, the following illnesses are clinically important because of seriousness or frequency; psychosis, depressive states, psychogenic non-epileptic seizure (PNES), and personality change.

Psychoses

Psychotic illness appears in 4% to 6% of patients with epilepsy. Because of its devastating impact on quality of life, every physician involved in the treatment of epilepsy should be familiar with psychosis [2]. If forced to choose only one, family members nearly always prefer that their affected loved one have seizures rather than psychosis. Psychotic illness in patients with epilepsy is now divided mainly into two types, that is, interictal and postictal psychosis. The former includes the well-known antagonistic appearance of psychosis as a replacement for epilepsy, initially reported by Hans Heinrich Landolt in 1953, [3] who coined the phrase "forced normalization" as a means of explanation. This antagonism is linked firmly with paradoxical normalization shown by EEG findings. Tellenbach later modified this concept, making it applicable to more extensive phenomena, by uncoupling the alternating appearance between psychosis and epilepsy from

EEG findings, and designated it as alternative psychosis [4]. In typical cases, delusory hallucinatory states, often accompanied by abundant Schneiderian first rank symptoms, develop in a subacute manner and resemble schizophreniform psychosis, but usually lack negative symptoms as well as ego-disorders such as delusion of control. The average duration of alternative psychosis ranges from several weeks to a few months. Interestingly, not only pharmaceutical but also successful surgical intervention can induce a psychotic outbreak as a replacement for seizure freedom.

The discovery of postictal psychosis was presented as late as three decades later. Logsdail and Toone separated this phenomenon as distinct from postictal confusion in 1988, [5] then the significance of their discovery was confirmed and propagated in "The Psychoses of Epilepsy" written by Michael Trimble in 1991 [6]. Although the pathogenetic mechanisms of both psychoses substantially overlap, the clinical picture and consequent practical significance varies greatly. In most cases, the duration of postictal psychosis is short-lived, ranging from several days to a few weeks. A cluster of secondarily generalized or complex focal seizures precipitate psychosis. Typically, there is a short lucid interval between the end of a seizure cluster and the start of psychosis, during which the affected individual behaves in a manner that is at least superficially unobtrusive. Postictal psychosis shows a unique constellation of symptoms, which 19th century psychiatrists such as Farlet used to call "true epileptic psychosis". Postictal psychosis is a mixture of miscellaneous flamboyant manifestations consisting of religious delusion,

hypersexual behavior, extreme agitation, and violence against the immediate surroundings as well as the patient themselves. In contrast to interictal psychosis, postictal psychosis ceases to occur when the seizures are gone. While postictal psychosis is closely associated with epilepsy originating from the limbic system, the epilepsy types preceding interictal psychosis are more diverse.

Depressive States

In earlier days, depression was believed to rarely appear in patients with epilepsy. Psychiatrists like me who belong to the older generation used to think that typical monopolar depression featured by self-condemnation and absence of vigor was rarely encountered in patients with epilepsy. At the dawn of epilepsy surgery, Hill stressed that depression was rarely found prior to surgery, with aggression and viscosity instead reported to supervene. After surgery, such outward going aggression turned to an inwardly returning one, that is, depression [7]. This intriguing observation has been neglected until recently, however, it is now widely recognized that depressive states in patients with epilepsy are generally quite different from typical monopolar depression and manifest themselves more like dysthymia, with features of irritability and excessive energy. Although there are plenty of expert opinions endorsing the effects of antidepressants including SSRIs, I am personally not so confident about their efficacy for dysthymia in patients with epilepsy. In fact, data strongly supporting such efficacy remain lacking [8]. However, in some patients with epilepsy who remain reticent and unobtrusive, typical depression does occur. In those cases, patients easily attempt suicide before complaining of their agony. In contrast to chronic dysthymia, intensive therapeutic measures should be taken immediately. Postictal depression, in which a peculiar mixture of depressive mood and irritability is often stated, should also be noted. This may be a source of serious suffering for affected patients [9].

Finally, depression occurring within a few months after surgical intervention for epilepsy can indicate imminent danger, even in cases of successful surgical outcome. This can easily lead to a serious suicidal attempt or suicide, and should be absolutely prevented, because such postsurgical depression nearly always completely disappears within a year [10].

Psychogenic Non-Epileptic Seizures

Among epilepsy mimics, psychogenic non-epileptic seizure (PNES) has been consistently reported to occupy the largest proportion. Among general neurologists, it ranges from 5% to 10% in patients referred for epilepsy, while it amounts to 20% to 30% of patients referred to a tertiary epilepsy center. The history of PNES dates back to the early 19th century. Jean Martin Charcot, the father of modern neurology, was passionately dedicated to its study towards the end of his brilliant career. Charcot attempted to strictly demarcate PNES from epilepsy, dividing it into two types, *hystéro-épilepsie à crises distinctes* and a *hystéro-épilepsie à crises combinées* [11]. Later, Kretschmer resumed study of the topic and described two streams of manifestation, motor outbreak and playing possum. Kretschmer interpreted PNES as a catastrophic reaction resulting from maladjustment to environmental pressure

[12]. This was sharply opposed to the Freudian viewpoint that unconscious fantasy originating from family conflict dating back to childhood is a cause of PNES. In reality, the clinical backgrounds of PNES vary greatly. In view of that diversity, optimal approaches to this epilepsy mimic might vary. However, except for the efficacy of cognitive therapy for PNES in general, specific approaches to different clinical backgrounds have not been well examined.

Epilepsy, Co-morbidity, DSM

Is the participation of psychiatrists in epilepsy treatment then a one-sided service without return? I do not think so. Epilepsy treatment makes psychiatrists aware that they may fall into a twisted world isolated from other fields of medicine. The concept of co-morbidity is an iconic feature of the DSM classification system, because the philosophy of that system lies in pure description based on observation, aiming to pigeonhole exploration of causes underlying the present symptoms. If this rule is strictly applied to present symptoms, it is not allowable to link one symptom complex with another via a causal relationship. What is allowed is to calculate the strength of a link between one symptom complex and another. If the link is strong enough, one symptom complex and another is regarded as being associated. As you might be immediately aware, this is a strikingly peculiar rule of thinking in medical science. In other fields of medicine, a symptom complex referred to as a syndrome is considered to be an excellent indicator of the underlying disease. A useful symptom is always expected to be exploited as a tool for serendipity, leading to the cause of the disease and, undoubtedly, its remedy.

Once involved in epilepsy treatment, it is immediately noticeable that this peculiar deprivation of the link between cause and resulting neutralization of symptoms cannot be simply sustained or remains perfunctory at best. For example, a pure description of a PNES symptom detached from the etiological connotation has nearly no practical meaning. A diagnosis of PNES only matters when it is coupled with the underlying non-epileptic nature. By limiting the field of activity exclusively to a typical psychiatric illness, such as depression or schizophrenia, psychiatrists can easily overlook how peculiar the classification philosophy of the DSM system is in view of medicine in general.

Conclusion

While attending the 30th International Epilepsy Congress held at Montreal in 2013, the current president of ILAE, Emilio Perruca, asked me, "How can we increase the number of psychiatrists who are willing to engage in treatment of epilepsy?" As I stated at the beginning of this editorial, we are the overwhelming minority among medical personnel involved in epilepsy. On the other hand, the need for psychiatric assessment as well as therapeutic intervention is so striking and ever increasing that no one who is confronted with epilepsy can neglect it.

As for schizophrenia or idiopathic depression, brain issues are usually exploited only as a measure for explanation in daily practice. Just as the DSM system admirably demonstrates, we can assess and treat patients without touching brain issues. Although it is extremely deviated from a typical medical diagnostic system, it still works. In contrast, brain issues and related etiological

discussions constitute indispensable ingredients of epilepsy treatment. Involved psychiatrists are inevitably reminded of etiological discussions. Undoubtedly, the involvement of psychiatrists in epilepsy treatment will help not only neurologists and neurosurgeons, but also the psychiatrists themselves,

helping them to be clearly aware that we live in a twisted world, even if it is the correct way to approach this particular field called psychiatry.

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