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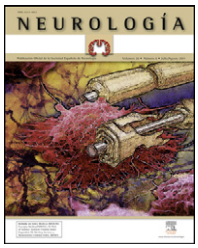

ORIGINAL ARTICLE

Epileptic peri-ictal psychosis, a reversible cause of psychosis☆

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Abstract
Introduction: Epileptic psychoses are categorised as peri-ictal and interictal according to their relationship with the occurrence of seizures. There is a close temporal relationship between peri-ictal psychosis and seizures, and psychosis may present before (preictal), during (ictal) or after seizures (postictal). Epileptic psychoses usually have acute initial and final phases, with a short symptom duration and complete remission with a risk of recurrence. There is no temporal relationship between interictal or chronic psychosis and epileptic seizures. Another type of epileptic psychosis is related to the response to epilepsy treatment: epileptic psychosis caused by the phenomenon of forced normalisation (alternative psychosis), which includes epileptic psychosis secondary to epilepsy surgery. Although combination treatment with antiepileptic and neuroleptic drugs is now widely used to manage this condition, there are no standard treatment guidelines for epileptic psychosis.
Clinical cases: We present 5 cases of peri-ictal epileptic psychosis in which we observed an excellent response to treatment with levetiracetam. Good control was achieved over both seizures and psychotic episodes. Levetiracetam was used in association with neuroleptic drugs with no adverse effects, and our patients did not require high doses of the latter.
Conclusions: Categorising psychotic states associated with epilepsy according to their temporal relationship with seizures is clinically and prognostically useful because it provides important information regarding disease treatment and progression. The treatment of peri-ictal or acute mental disorders is based on epileptic seizure control, while the treatment of interictal or chronic disorders has more in common with managing disorders which are purely psychiatric in origin. In addition to improving the patient's quality of life and reducing disability, achieving strict control over seizures may also prevent the development of interictal psychosis. For this reason, we believe that establishing a treatment protocol for such cases is necessary.

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PALABRAS CLAVE
Epilepsia;
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Psicosis epiléptica

Psicosis epiléptica periictal, una causa de psicosis reversible

Resumen
Introducción: Las psicosis epilépticas se dividen respecto de su relación con las crisis en periictales e intericticales. Las psicosis periictales tienen una estrecha relación temporal con las crisis epilépticas y ocurren antes (preictales), durante (ictales) o después de las mismas (postictales). Generalmente, tienen un inicio y final agudo, corta duración y una remisión completa, con riesgo de recurrencia. Las psicosis intericticales o crónicas no guardan relación temporal con las crisis epilépticas. Existe otro tipo de psicosis epilépticas que se relaciona con la respuesta al tratamiento de la epilepsia: psicosis epiléptica por fenómeno de normalización forzada (psicosis alternativa) y dentro de esta se encuentra la psicosis epiléptica secundaria a cirugía de la epilepsia. Aunque se ha generalizado la combinación de antiepilépticos y neurolépticos para su manejo, no existen unas pautas estandarizadas de tratamiento en las psicosis epilépticas.
Casos clínicos: Presentamos 5 casos de psicosis epilépticas periictales y remarcamos la excelente respuesta al tratamiento con levetiracetam. Consiguiendo un buen control tanto de las crisis como de los episodios psicóticos. Este fármaco resultó inocuo al asociarlo con neurolépticos en nuestros pacientes y no se precisaron dosis elevadas de estos últimos.
Conclusiones: La diferenciación de los estados psicóticos asociados con la epilepsia según la relación temporal con las crisis epilépticas tiene utilidad clínica y pronóstica, dado que aporta aspectos importantes respecto al tratamiento y a la evolución de la enfermedad. El tratamiento de los trastornos mentales periictales o agudos se basa en el control de las crisis epilépticas, mientras que el tratamiento de los intericticales o crónicos guarda más similitud con el de los trastornos de origen puramente psiquiátrico. El control estricto de las crisis puede, además de mejorar la calidad de vida del paciente y su discapacidad, prevenir el desarrollo de una psicosis intericticl, por lo que consideramos que sería necesario establecer un protocolo de tratamiento para estos casos.

Introduction

Doctors have known since the mid-19th century that there is a relationship between epilepsy and psychosis[1]; however, the pathophysiological causes of this association remain unknown even today. The temporal lobe houses structures of the limbic system that participate in the regulation of emotional behaviour. Changes in personality are known to be related to interaction between the hippocampus and the amygdala.[2] Moreover, patients with temporal lobe epilepsy present a higher frequency of schizophrenia-like psychoses.[3,4] According to the literature, between 19% and 80% of all epileptic patients experience a psychotic episode at some point during the course of the disease. Some studies have shown that the type of epileptic syndrome, treatment response, and the patient's psychosocial conditions affect an epileptic patient's probability of developing psychosis.[5]

Epileptic psychoses often manifest as visions, auditory or visual hallucinations, and affective changes, such as agitation, fear, or paranoia. They may be described as peri-ictal or intericticl psychoses depending on the moment in which they appear. Peri-ictal psychoses have a close temporal relationship with epileptic seizures, and may occur before (pre-ictal), during (ictal), or after (postictal) seizures. They are generally characterised by abrupt onset and resolution, short duration, and full remission with risk of recurrence. The relationship between intericticl or chronic psychoses and epileptic seizures is not based on proximity in time. Based on the link between psychosis and type of seizure treatment, we can distinguish between epileptic psychosis due to forced normalisation and alternative psychosis, which includes epileptic psychosis secondary to epilepsy surgery.[6]

A combination of antiepileptic and neuroleptic drugs is frequently used in treating epileptic psychoses, despite the interactions caused by the hepatic metabolism of most of these drugs. Nevertheless, there is no consensus on the optimal antiepileptic drug for this pathology and no standard guidelines for treating this type of psychosis.[6]

Patients and methods

We present a descriptive study of 5 cases of peri-ictal epileptic psychosis that respond to treatment with antiepileptic drugs associated with an antipsychotic during the acute phase (Table 1). We highlight the safety of and good response to treatment with levetiracetam and low doses of neuroleptic drugs in these cases.

Pre-ictal psychosis

Case 1 was a female patient aged 32 years who was diagnosed in 1997 with relapsing-remitting multiple sclerosis that progressed rapidly. She therefore was treated consecutively with interferon β-1a, azathioprine, and mitoxantrone. The condition stabilised over the 2 following years (EDSS 3.5) with glatiramer acetate, amantine, and oxybutynin. The patient visited the emergency department and stated that she was hearing voices. She was diagnosed with