Can we predict de novo psychopathology after refractory temporal epilepsy surgery? The role of predisposing and related factors

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Abstract

Introduction: The gold-standard treatment in refractory epilepsy is the surgical ablation of the epileptic focus. However, while most patients can be “cured” with dramatically improvement in their quality of life, others show de novo psychopathology and changes in behaviour and personality.

Objectives: We aimed to study de novo psychopathology after epilepsy surgery as well as predisposing and related factors.

Methods: We performed a search on the Anglo-Saxon literature, the EMBASE, MEDLINE and PubMed were consulted using the following key words: “epilepsy”, “psychopathology”, “personality”, “behaviour”, “outcome” and “surgery”.

Results: After temporal epilepsy surgery, 9.6 to 31% of patients may refer the onset of new psychiatric problems. On the other hand 15% to 54% report the resolution of previous psychiatric diagnoses. The most common reported de novo diagnoses were depression, anxiety, organic mood and personality disorders there are also reports of the emergence of psychosis possibly related to “forced normalization”. Psychiatric diagnoses appear to be more common in patients with right temporal lobe seizure focus, preoperative postictal psychosis, younger age at surgery, temporal lobe epilepsy, poor family adjustment to life after surgery, preoperative psychiatric history and ongoing seizures postoperatively. However these finding are not consistent across different studies and conflicting results have been reported. Beside psychological factors such as the burden of normality and disturbed family dynamics, biologically, the disruption of mesial temporal structures via mesial temporal lobe resection may contribute to the emergence of these side effects considering its role on mood and psychosis. On the other hand personality scales show improvement in some aspects such as a decrease in interpersonal sensitivity, irritability, and social introversion suggesting greater social desirability and self-control abilities.

Discussion and Conclusions: There is still little research on other kinds of surgery as well as what concerns the study of predictors of psychiatric side effects. This study emphasises the importance of pre and post psychiatric evaluation of patients submitted to epilepsy surgery.

Supplementary material: Complete presentation available at http://ijcnmh.arc-publishing.org

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