

Referenced-EEG-Guided Pharmacotherapy of Dual Diagnosis Patients

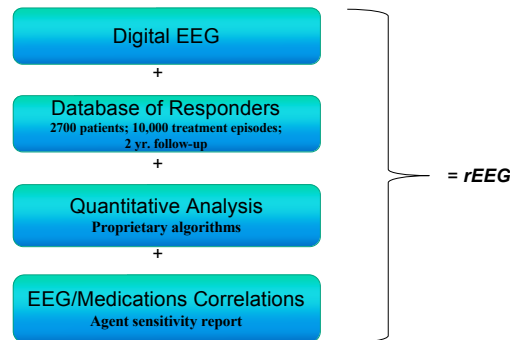
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BACKGROUND

Referenced-EEG (rEEG) is a technology that uses quantitative EEG (QEEG) findings as the independent variable to predict medication response for patients with non-psychotic psychiatric disorders. Referenced-EEG compares the drug-free EEG patterns to a database of patients who have previously responded to a given class of medications.^{1,2} Based on the similarities between a patient's QEEG and those of previous medication responders, rEEG provides a neurophysiological basis for the identification of effective psychiatric medications for patients.

Figure 1 – Principles of rEEG



OBJECTIVE

This clinical case series was conducted to examine the use of rEEG in dual diagnosis patients as pilot data to assess whether larger controlled studies of rEEG-guided treatment in this population are warranted.

METHODS

77 dually-diagnosed patients were treated pharmacologically based on rEEG guidance in a variety of residential and outpatient settings as per standard clinical practice at these sites. Patients ranged from ages 14 to 62 and met criteria for DSM-IV, Axis I, non-psychotic psychiatric illness as well as DSM-IV alcohol/drug abuse/dependence diagnoses. Patients were tested at least 21 days after detoxification. A CGI-Severity score was assessed at treatment onset and a CGI-Improvement scale was assessed at least 6 weeks after treatment by the treating physicians.

RESULTS

65 patients (84%) were rated markedly or severely ill. 50 of these patients (77%) were rated much to very much improved. 12 patients (16%) were rated mildly to moderately ill. Of these 11 (92%) were rated much to very much improved. Overall, 79% of patients were rated much to very much improved.

CONCLUSIONS

This pilot data indicates that the success rate of rEEG-guided pharmacotherapy of dual diagnosis patients is consistent with rates demonstrated in studies of patients with affective and attentional disorders and would support the development of large, formal trials of the effectiveness of rEEG in dual diagnosis patients.

Figure 2 – Results – CGI – Improvement

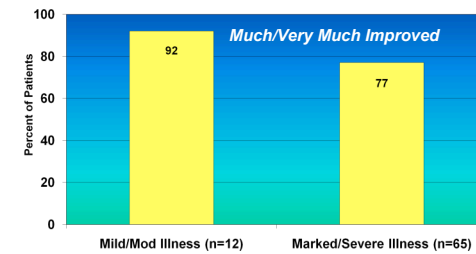
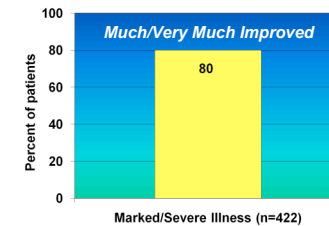


Figure 3 – Seven Other rEEG Treatment Series – CGI – Improvement



REFERENCES

1. Suffin & Emory. *Clinical EEG and Neuroscience*, 1995
2. Suffin et al. *J of Am Physicians and Surgeons*, 2007