THE INTEGRATION OF QUANTITATIVE EEG (QEEG) BRAIN-MAPPING WITH tMS THERAPY
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OBJECTIVE: To integrate Quantitative EEG (QEEG) Brain-Mapping with tMS Therapy in a patient with Major Depression Disorder with comorbid Anxiety Disorder, in which a QEEG was recorded and reviewed in part of the decision-making process in July 2017 and later prior to initiation of tMS Therapy. Patient was diagnosed with the P44.1Q:13 and received tMS Therapy for 1 year with some improvement over time in QEEG and QEEG findings:

1. Pre-TMS QEEG:
   - P44.1Q:13

2. Pre-TMS Brain Map:
   - Alpha Power (4-45 Hz)
   - Relative Power (%)

3. Post-TMS QEEG:
   - Alpha Power (4-45 Hz)

4. Post-TMS Brain Map:
   - Alpha Power (4-45 Hz)

5. Z-scores for Relative Power
   - Pre-TMS
   - Post-TMS

6. Scales - PHQ-9 and QIDS-SR
   - Depression scales administered throughout treatment

RESULT: At the conclusion of tMS Therapy, patient responded to his treatment with 50% or greater reduction in depression scores on both the PHQ-9 and QIDS. Overall, tMS Therapy was deemed beneficial and the patient showed a significant decrease in depressive symptoms.

DISCUSSION: Results indicate the potential benefits of integrating QEEG Brain-Mapping with tMS Therapy for patients with depression. Further research is needed to confirm these findings and to further investigate the efficacy of this combined approach in different clinical settings.

REFERENCES:

ACKNOWLEDGMENTS: The authors would like to acknowledge the support and collaboration of the patients and healthcare providers involved in this study.