FUNCTIONAL EEG PARTICULARITIES IN TWO BEHAVIORAL CONDITIONS OF A PROFESSIONAL OPERA SINGER, FIRST LISTENING TO HER OWN VOCAL PARTITION AND SECONDLY IN SILENT MENTAL TRAINING

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A mirrored voice feed back neurophysiological study has been poorly explored and an opera singer headache partially ignored in clinic.

We observe two conditions of high functionality with EEG particularities for each behavior of an opera singer, first showing the patient listening to her own voice

Performance, and secondly, executing silent training of the same partition, eyes closed in both cases.

With video-digital EEG, we emphasize the different frequency approaches with spectrum analysis in both situations. We deduce the consequence of a self vocal feedback auditory exercise on brain excitability, opening a hypothesis

of different approaches of functional appliances and an eventual specificity of an artist's brain neuro-modulation network, aside from all epileptic occurrence .

This case of a professional opera singer illustrates a functional acquired sensitivity to own vocal activation, leading to discomfort with abnormal response in EEG and broad spectrum frequencies distributed on anterior leads and pseudo-discharges, susceptible to be related to acquired inappropriate neuro-modulation and new network linkage of adulthood, ineffective for the purpose of singing in an optimal way. This phenomenon is especially observed, compared to silent mental repetition singing.

Triggering new connections in rehabilitation with TMS or direct electrical devices could build new bridges to recovery.