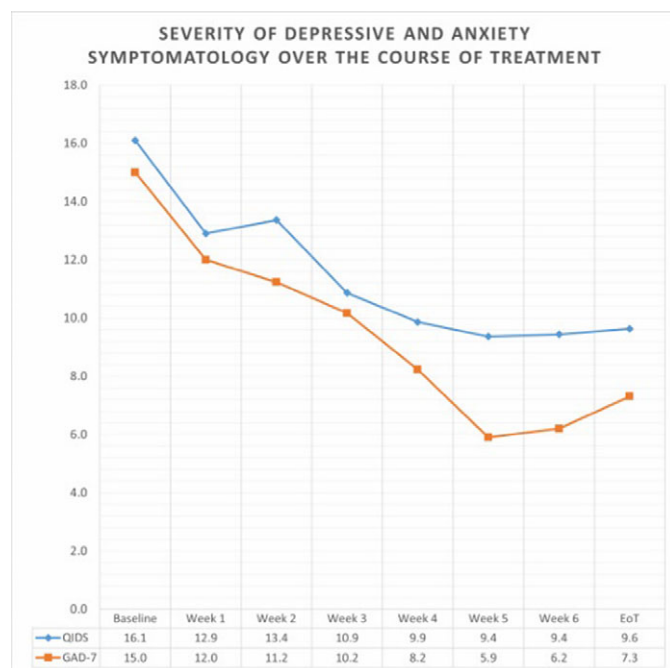


Results: We have treated 30 patients, 12 women (40%) and 18 men (60%), with average age of 42.0 ± 15.6 years. All patients had a primary diagnosis of major depressive disorder. The standard questionnaires were used to quantify the severity of depressive symptoms (QIDS) and anxiety (GAD-7). The average baseline scores for depression and anxiety were 16.1 ± 4.9 and 15.0 ± 4.4 , respectively. The patients received an average of 28.1 ± 5.1 treatments. All patients but one received the full course of treatment as planned. The average end-of-treatment (EoT) scores for severity of depressive symptoms and anxiety were 9.6 ± 6.5 and 7.3 ± 5.3 , respectively. The rates of improvement and remission for depressive symptoms were 66.7% and 36.7%, respectively. The rates of improvement and remission for anxiety symptoms were 76.9% and 30.8%, respectively.

Image:



Conclusions: Our data indicate that rTMS provides significant improvement and recovery rates in complex clinical populations and is well-tolerated. While further research is required, we recommend wider implementation of rTMS for treatment of mood and anxiety disorders.

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Associations in time between salivary cortisol and emotions in depressed patients and controls

A.-S. Koning^{1*}, S. H. Booij², O. C. Meijer¹, H. Riese² and E. J. Giltay³

¹Endocrinology, Leiden University Medical Center, Leiden;

²Psychiatry, University Medical Center Groningen, Groningen and

³Psychiatry, Leiden University Medical Center, Leiden, Netherlands

*Corresponding author.

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Introduction: Depression can be understood as a complex dynamic system, where depressive symptoms can directly affect each other. Knowledge on this symptom-symptom interaction is still scarce and is likely to differ between individuals. The hypothalamic-pituitary-adrenal (HPA) axis is often implicated in depression, with hypercortisolism and impaired glucocorticoid receptor-mediated feedback inhibition being commonly reported. High salivary cortisol levels may reflect a reaction to symptoms, or may rather be a cause, effectively 'binding' symptoms.

Objectives: We aimed to analyze the temporal interplay between salivary cortisol and emotions in depressed patients and controls by using the novel Dynamic Time Warp analysis (DTW) approach.

Methods: The 'Mood and movement in daily life' (MOOVD) study consisted of 30 pair-matched (15 depressed and 15 control) participants. Salivary cortisol was collected three times a day for 30 days, resulting in 90 measurements per individual. At the same moments, participants completed questionnaires on an electronic diary, which included different momentary positive (PA) and negative (NA) affect items. The dynamic interplay between salivary cortisol and affect were analyzed by DTW, which extends momentarily associations to include one earlier and one later time point, in both undirected and directed analyses.

Results: Individual networks differed substantially within groups. At the group level, undirected and directed network analyses showed differences between depressed patients and controls. In undirected analysis, connectivity of PA items was comparable between depressed patients and controls, but the NA items showed a less dense network in depressed patients. Directed DTW analyses indicated ($p = 0.07$) that increases in salivary cortisol preceded that of some NA items (e.g., tiredness) in controls, but tended to follow upon NA item increase (e.g., not feeling appreciated) in depressed patients.

Conclusions: At the group level, connectiveness between NA items was substantially weaker in depressed patients compared to controls. As in complex systems strong internal connectivity facilitates "critical transitions" to different states, this may reflect (or explain) the persistence of a chronically depressed state. We preliminary conclude that high salivary cortisol in depression may be a consequence of NA, rather than a cause. Replication of these first exploratory findings are needed.

Disclosure of Interest: None Declared