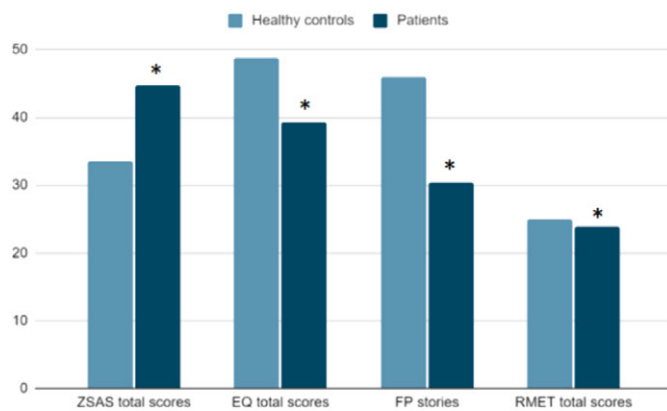**Introduction:** Theory of Mind is defined as the ability to understand mental states of other people, and is notoriously impaired in patients with Autism Spectrum Disorder. A growing body of evidence suggests an impairment of Theory of Mind in several other psychopathological disorders. However, only few studies have assessed Theory of Mind in patients with Anxiety Disorders (AD), addressing only patients with Social Anxiety Disorder.

Objectives: We aimed to investigate the differences in Theory of Mind between patients with AD and Healthy Controls (HC).

Methods: We enrolled 35 patients admitted in the Psychiatric Unit of Careggi with diagnosis of AD and 31 HC. We administered them: Zung Anxiety Scale (ZSAS), Empathy Quotient (EQ), Reading the Mind in the Eyes (RMET), and Faux Pas test (FP). A t-test for independent samples was performed to assess between-group differences.

Results: Zung total scores proved to be significantly higher in patients (t(60)=4.375, p<0.001), while Empathy Quotient total scores (t(61)=-3.325, p=0.002), detection of faux pas in Faux Pas test (t(61)=-4.957, p<0.001), RMET total scores (t(63)=-2.269, p=0.031) were significantly higher in healthy controls.

Conclusions: Such preliminary data suggest impairment of Theory of Mind and Empathy in patients with AD as compared to HC. This could be linked to the development and maintenance of anxiety symptoms in patients with AD, making Theory of Mind a potential target in psychotherapy of AD.

Disclosure: No significant relationships.

Keywords: Anxiety; Empathy; Theory of Mind; Anxiety disorders

EPP0179

Impact of central antagonist of cholecystokinin-1 receptors GB-115 on cognitive functions in patients with Generalized Anxiety Disorder.

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Introduction: Generalized anxiety disorder (GAD) is associated with reduced attention, inhibition, decrease of processing speed. The impact of a new peptide antagonist of central cholecystokinin-1 receptors (GB-115) on cognitive processes in patients with GAD is reported.

Objectives: To research the cognitive effects of GB-115 in patients with GAD.

Methods: 25 patients with GAD in ICD-10 (mean age 35,76±8,55 years) treated with GB-115 in clinically relevant dose (6 mg/d) were enrolled to the study. The evaluation of cognitive functions was conducted at background, Day 3, Day 7, Day 14 and Day 21. The laboratory test toolkit included reaction time test, Shulte-Platonov tables, attention tests (using hardware and software complex "NeuroSoft-PsychoTest"). Statistical significance was ascertained by Wilcoxon signed-rank test.

Results: Speed of reaction time increased on the Day 7 (418,17±61,49 msec, p≤0,01), the Day 14 (422,25±70,69 msec, p≤0,01) and the Day 21 of treatment (406,5±52,79 msec, p≤0,01) in comparison with background (449,19±64,91). Attention parameters improved on the Day 3 (305,95±45,31 msec, p≤0,05) and the Day 21 of treatment (300,14±47,74 msec, p≤0,05) in comparison with the background (316,41±42,35 msec). Decrease of time in performance of tables of Shulte-Platonov was also observed on the Day 7 (59,40±13,71 sec, p≤0,01), the Day 14 (57,88±12,82 sec, p≤0,01) and the Day 21 (53,40±13,19 sec, p≤0,01) in comparison with the background (68,84±16,78 sec).

Conclusions: GB-115 revealed cognitive effects such as an increase of processing speed and improvement of different aspects of attention (attentional resource allocation, attention span and switching) after the Day 7 of treatment.

Disclosure: No significant relationships.

Keywords: anxiety disorder; cholecystokinin; anxiolytic; cognitive functions

EPP0180

Anxiety in patients with hyperthyroidism

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Introduction: Mental symptoms are the first manifestations of hyperthyroidism. They include anxiety, dysphoria, irritability, emotional lability, sleep disorders, intellectual dysfunction, mania or depression. Anxiety is the main symptom and requires more detailed study.

Objectives: The objective was to determine symptomatology of anxiety in patients with hyperthyroidism and compare with euthyroid patients.

Methods: The study included 56 patients with hyperthyroidism (high free T3 and free T4, suppressed TSH) and 32 euthyroid patients (normal free T3, free T4 and TSH) of the control group. For psychiatric assessment State-Trait Anxiety Inventory [STAI], Hamilton Depression Rating Scale [HAM-D], and Hamilton Anxiety Rating Scale [HAM-A] were used.

Results: Total scores obtained from STAI, HAM-D and HAM-A were significantly greater in the hyperthyroidism group than that of the euthyroid group (p<0.05). The level of state anxiety in patients with hyperthyroidism was 51.39 ± 0.95 (high level) compared with 41.59 ± 2.41 (moderate level) in the control group. The level of trait anxiety in patients with hyperthyroidism was 46.86 ± 0.69 (high level), and 44.16 ± 2.17 (moderate level) in the control group.

Psychomotor agitation (HAM-D # 9), psychic anxiety (HAM-D # 10), insomnia (HAM-A # 4) and weight loss (HAM-D # 16) were typical for patients with hyperthyroidism, while in the control group predominate the feelings of fatigue, weakness and loss of interest in working (HAM-D # 7).

Conclusions: The prevalence of anxiety in patients with hyperthyroidism is significantly more frequent compared to euthyroid patients. Anxiety and other psychiatric symptoms should be considered by both endocrinologists and psychiatrists.

Disclosure: No significant relationships.
Keywords: Anxiety; Mental symptoms; Thyrotoxicosis; Hyperthyroidism

EPP0181

Predicting the effect of antidepressant treatment on relief from anxiety symptoms

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Introduction: Depression and anxiety disorders are among the most prevalent forms of mental illness, with antidepressants frequently used to treat them. Unfortunately, prescription of antidepressant medication is often inexact and relies on a long trial-and-error process.
Objectives: Using machine Learning (ML) algorithms on readily obtainable clinical and demographic data of individuals diagnosed with depression with anxiety symptoms, we hypothesized that we will be able to derive models which will enable a more accurate treatment selection, focusing on relief from anxiety symptoms.
Methods: Patients' data from the Sequenced Treatment Alternatives to Relieve Depression (START*D) were filtered to include only those who have considerable anxiety symptoms. We then analyzed these patients' response patterns, focusing on their anxious symptomology. Then, feature selection algorithms were applied to select the most predictive features for anxiety relief. Finally, we trained three ML models for three antidepressants: citalopram, sertraline and venlafaxine, using a training set of participants, and validated them on naïve validation and test datasets. These ML models were then compiled to create a predictive algorithm.
Results: Validating the algorithm on the validation and test sets, our algorithm achieved a balanced accuracy of 64.8% ($p<0.001$), 79.2% ($p<0.001$) and 78.03% ($p<0.001$) for citalopram, sertraline and venlafaxine, respectively.
Conclusions: Our findings support applying ML to accumulating data to achieve an improvement in the treatment of mood disorders. The algorithm we developed may be used as a tool to aid in the choice of antidepressant medication, specifically for depressed patients who exhibit prominent anxiety symptoms.

Disclosure: Dekel Taliaz is the founder and CEO of Taliaz and reports stock ownership in Taliaz. Amit Spinrad and Roni Zoller serve as data scientists in Taliaz.
Keywords: Precision Medicine; Anxiety disorders; machine learning; Treatment Selection

EPP0182

Comparative effectiveness of group-analysis therapy and psychoeducation in patients with different somatoform disorders

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Introduction: Psychological interventions including group analysis (Leichsenring et al., 2015, Beutel et al., 2008) are effective with patients having somatoform disorders.
Objectives: To reveal differences in dynamics of pathological bodily sensations, quality of life, illness representation in patients with somatoform disorders undergoing group analysis and psychoeducation program.
Methods: 100 patients with somatoform disorders (undifferentiated somatoform disorder – 42, somatization disorder – 10, somatoform autonomic disfunction – 36, persistent somatoform pain disorder and other SD – 12) were randomly assigned randomized to psychoeducation intervention and to the group analysis psychotherapy. Before and after treatment they filled Screening for somatoforms symptoms (Rief, Hiller, 2003), Illness Perception Questionnaire - Revised (Moss-Morris et al., 2002), Cognitions About Body And Health Questionnaire (Rief et al., 1998), Scale for the Assessment of Illness Behaviour (Rief et al., 2003), Quality of Life Enjoyment and Satisfaction Questionnairie-18 (Ritsner et al., 2005).
Results: In both conditions decrease in complaints was the most in patients with undifferentiated somatoform disorder and the least in somatoform autonomic disfunction ($F=6.19$, $p<.01$, $\eta^2=.17$). In patients with somatization disorder there was the most increase in quality of life in leisure time, beliefs about intolerance to bodily sensations, rechecking the diagnosis ($F=3.32-4.87$, $p<.05$, $\eta^2=.10-.14$). Decrease in beliefs about bodily weakness, illness consequences was the most prominent in patients with somatization disorder undergoing group therapy ($F=2.90-4.46$, $p<.05$, $\eta^2=.09-.13$).
Conclusions: Patients with undifferentiated somatoform disorder demonstrate most clinical improvement in interventions while patients with somatization disorder – the most psychological improvement. Research is supported by the Russian Foundation for Basic Research, project No. 20-013-00799.

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Keywords: group analysis; illness represenation; Somatoform disorders