disorders, schizophrenia, bipolar disorder, addictive disorders, certain personality disorders etc. Specific instruments for assessment of anhedonia have been published in the international literature but their Hungarian versions are not available so far, however, the prevalence of affective disorders and suicide are also high in Hungary. The Snaith-Hamilton Pleasure Scale (SHAPS) is an instrument developed in 1995 (Snaith et al. Br J Psychiatry1995;167:99-103) which purposley has been constructed with items that can be easily translated into other languages.

Objectives: The aim of our study was to translate the 14 items into Hungarian and analyse its reability and sensitivity in a Hungarian sample consists of patinets and control persons. Further aim was to explore the differences of anhedonia profiles among diagnostic categories and subgroup of major disorders.

Methods: We recruited 170 subjects (101 controls and 59 patients; 78 men and 82 women; mean age=37,9±6,1y) into our study. Among the patients there were 27 subjects with major depressive disorer (MDD), 10 subjects with bipolar disorder (BD), 9 patients with schizophrenia (SCZ), 6 patients with addictive disorder (AD) and 7 patients with anxiety disorder (ANX)±. We created two major subgorups from the dfferent diagnostic categories: affective and psychotic subgroups to compare the anhedonic profiles. Differences of mean values between case and control, men and women and subgroups were analysed by t-tests and diganostic categories by ANOVA tests performing in SPSS 20.0 software.

Results: Among the MDD, the BD, the SCZ, the AD and the ANX groups, patients with MDD produced the highest score (6.9±3.5; 3.9 ±2.4; 5.9±3.9; 2.8±2.7;2.3±1.8, respectively), while controls prohibited 1.6±1.3. The case group scored significantly higher on the SHAPS than the control group (5.3± 3.6 vs. 1.6±1.3; p=0.0001). The means of SHAPS did not differ significantly between the affective subgroup and the psychotic subgroup (6.0±3.7 vs. 4.8 ±3.2; p=0.24). Among the subgroup of women, the age was significantly associated with the SHAPS score (p=0,04), however, this association has been not detected in men.

Conclusions: The Hungarian version of the SHAPS detected marked difference between cases and controls with good reliability and sensitivity. The instrument can be useful in daily clinical routin becuase subjects could fill it easily and quickly. In case of patients with pronounced anhedonia, treatments with spcifically targeting anhedonia can be preferred (e.g. rTMS as it was demonstrated in our earlier publications, see Lazary et al. Sci Rep 2021,11:8867; Elemery et al. Front Psychiatry 2022, 13:806731). This study was supported by the grant EFOP 5.6.2.

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EPV0404

Breath Gas Markers in Depression and Their Relationship with Brain Metabolism

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Introduction: Dysfunctional changes in the glutamatergic system play an important role in the pathophysiology of depression. Glutamate regulates various neuronal function, such as nerve migration, excitability, plasticity, as well as long-term potentiation and long-term synaptic depression. Failures in this process might cause emotional/cognitive changes associated with stress-induced depressive symptoms, a part of our current understanding of the pathophysiology of depression. These changes might be related to deviations in biochemical blood parameters, but also to volatile organic compounds (VOCs) measured in breath.

Objectives: 1) To replicate our previous finding that concentration of volatile organic compounds in expiratory breath gas and metabolites derived from MR spectroscopy distinguish unmedicated depressed patients from healthy participants, (2) to determine whether the amount of these VOCs is associated with severity of depression and anxiety, and (3) to correlate breath-VOC-content with glutamatergic neurotransmission and energy metabolism derived from MR spectroscopy.

Methods: 25 antidepressant-free patients with major depression according to DSM V (18-65 years of age) are recruited from our out- and inpatient clinics. The controls will consist of 25 healthy age-and-sex-matched participants. Breath gas analyses will be carried out at awakening, and 30 and 60 minutes thereafter, and at 5pm using PTR-TOF-MS with direct on time measurement through a special sampler. A 7 Tesla Siemens Terra MRI scanner will be used to undertake spectroscopic measurements. Concentrations of glutamate and β-hydroxybutyrate levels in the pregenual and dorsal anterior cingulate gyrus will subsequently be assessed.

Results: Statistical analysis for differences between groups corrected for multiple measurements will be carried out. Concentration of VOCs will be correlated with brain metabolism and severity of symptoms.

Conclusions: VOCs in breath are proposed to be an efficient and non-invasive marker for depression-related biochemical changes related to disease severity, and eventually useful for personalized treatment planning.

Disclosure of Interest: None Declared

EPV0406

Effects of a Cognitive Bias Modification Training on Resting State EEG Microstates in Patients with MDD and Healthy Controls

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Introduction: Major Depressive Disorder (MDD) is associated with a high burden of disease and notable economic costs. Standard treatments (e.g. medication or cognitive therapy) have been shown to be effective, but some patients remain unresponsive. With the knowledge that MDD patients have been shown to display an attentional cognitive bias towards negative stimuli,