

determined in patients' platelets (-pl) and erythrocytes (-er). The control group consisted of 51 peoples 55-84 years old without mental pathology. Cluster analysis module of the STATISTICA software was used for clustering the patients by baseline blood parameters.

**Results:** Three clusters of patients were obtained: C1,  $n=39$ , C2,  $n=31$ , C3,  $n=31$ , differing significantly in all biochemical parameters (Kruskal-Wallis test,  $p<0.001$ ), except GST. When compared with control group by Mann-Whitney test, GST-pl, GST-er, and GR-er were significantly decreased in C1; GST-er was significantly increased in C2; GST-pl, GR-pl, and GR-er were significantly decreased in C3. Several significant correlations were found between the measured parameters and scores by HDRS or HAMD-17. In C1, baseline activity of GST-er correlated with total scores by HAMD-17 ( $R=0.335$ ,  $p=0.043$ ) after treatment. In C2, baseline activity of GR-er correlated with total scores by HARS ( $R=-0.376$ ,  $p=0.037$ ) after treatment and GR-pl correlated with delta scores by HAMD-17 under the treatment ( $R=0.484$ ,  $p=0.006$ ). No significant correlations were found in C3. Patients with BD distributed significantly unevenly between C1, C2, and C3, with significantly more BD patients clustering in C1 (61%) compared with C2 and C3 (Yates-corrected Chi-square = 7.73,  $p=0.0054$ ), whereas patients with RD and DE distributed evenly.

**Conclusions:** Patterns of activity levels for glutathione-dependent enzymes in patients with BD differ from those in patients with RD and DE. Significant correlations of the measured biochemical parameters with scores by HDRS or HAMD-17 assessed after the treatment and evidenced for the treatment efficacy seem to be promising biomarkers for further evaluation of the treatment efficacy in heterogeneous group of LLD patients using the proposed approach to their stratification into subgroups.

**Disclosure of Interest:** None Declared

## EPP0529

### Aberrant Functional Connectivity Between Regions Involved in Belief Evaluation and Processing of Bodily Information in Patients with Somatic Delusions

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**Introduction:** According to the two-factor theory of delusional belief (Coltheart. Ann N Y Acad Sci 2010; 1191 16-26), explaining the presence of a delusion requires a combination of two neuropsychological impairments. The first deficit initially prompts the delusional belief and defines its content, whereas the second deficit – aberrant belief evaluation – interrupts the

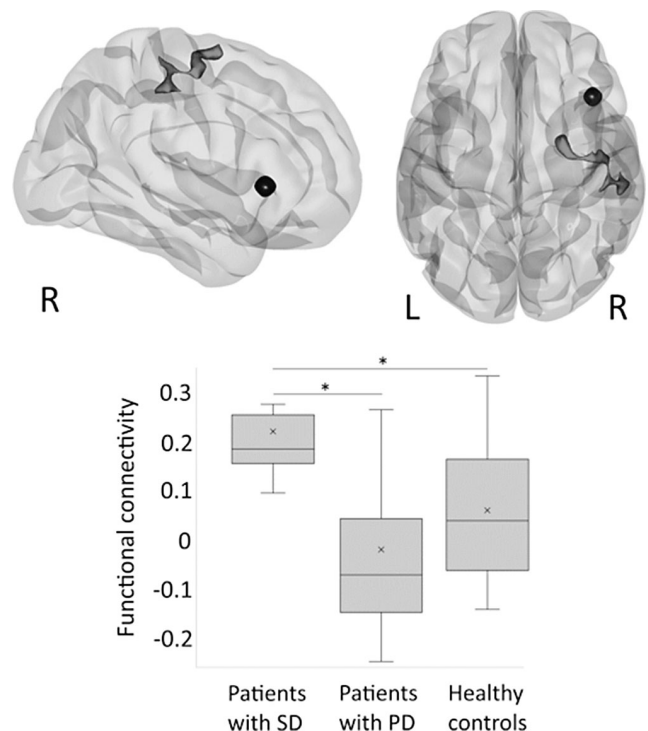
rejection of a delusional belief and is common for different types of delusions. The second deficit is associated with compromised functioning of the right ventral frontal/anterior insular cortex (r-VF/AI; Darby et al. Brain 2017; 140 497-507). However, neural correlates of the first deficit in different types of delusions remain obscure.

**Objectives:** The aim of the study was to search for regions whose functional connectivity with r-VF/AI is different between patients with somatic delusions (SD) and persecutory delusions (PD) and to further clarify the results by comparing clinical groups with healthy controls. We hypothesized that each clinical group is characterized by aberrant functional connectivity between a region, associated with poor belief evaluation (r-VF/AI), and a region, presumably associated with a neuropsychological impairment specific to the corresponding type of delusions.

**Methods:** Patients with delusional disorder or paranoid schizophrenia ( $n = 23$ ) and healthy controls ( $n = 9$ ; 5 females; mean age  $36.2 \pm 1.3$ ) underwent resting-state fMRI (Philips Ingenia 3T). Nine patients had SD (5 females; mean age  $40.3 \pm 7.9$ ) and fourteen patients had PD (3 females; mean age  $35.6 \pm 10.2$ ). The clinical groups were compared in terms of whole-brain functional connectivity of r-VF/AI (ROI-to-voxel analysis in CONN; RRID: SCR\_009550; [www.nitrc.org/projects/conn](http://www.nitrc.org/projects/conn)). Statistical thresholds were  $p < .005$  voxelwise,  $p[\text{FDR}] < .05$  clusterwise. Each clinical group was compared with controls in terms of functional connectivity between r-VF/AI and previously identified regions with between-group differences in connectivity (ROI-to-ROI analysis). Age was a covariate of no interest in all analyses.

**Results:** Patients with SD compared to patients with PD and healthy individuals had higher functional connectivity between the r-VF/AI and a cluster in the right precentral and postcentral gyri extending to supramarginal and superior frontal gyri (Figure 1).

**Image:**



**Conclusions:** The regions whose functional connectivity with r-VF/AI was aberrant in patients with SD are involved in the processing of tactile, proprioceptive, and visceral information. Our results coincide with a suggestion that the evaluation of beliefs related to bodily sensations is disturbed in patients with SD.

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## Oncology and Psychiatry

### EPV0688

#### Are antipsychotics carcinogenic?: A review of the literature

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**Introduction:** Antipsychotics are currently widely prescribed for various mental disorders. A presumption of a potential carcinogenic effect of antipsychotics was raised by certain studies. There are few data in the literature on this subject.

**Objectives:** Study the relationship between the use of antipsychotics and the risk of cancer.

**Methods:** A systematic literature review was carried out on PubMed looking for articles in English, published during the last decade (2013-2023), using the keywords "Antipsychotics" and "Cancer". We included all articles studying the relationship between antipsychotics use and cancer risk.

**Results:** Nine articles were included in our study, the majority of which focused on breast cancer. The results regarding breast cancer were discordant: although three studies did not show an association between the administration of antipsychotics and breast cancer, more recent studies have proven the opposite. Indeed, chronic exposure to antipsychotics, particularly those raising prolactinemia, was significantly associated with an accumulated risk of breast cancer, especially with positive estrogen receptors, whereas prolactin-sparing antipsychotics were not associated with it. Regarding hematologic malignancies, unlike other antipsychotics, long-term use of clozapine was associated with a high risk of malignancy, and had a greater effect on mortality from lymphoma and leukemia than to agranulocytosis. On the other hand, it has been proven that the use of atypical antipsychotics is associated with a reduced risk of lung cancer.

**Conclusions:** Data from the literature regarding the carcinogenic potential of antipsychotics remain discordant and inconclusive. The most recent studies are worrying and highlight in particular an association between the use of antipsychotics and the increased risk of breast cancer. If these data are confirmed in future studies, this will undoubtedly impact the benefit-risk balance when making therapeutic decisions.

**Disclosure of Interest:** None Declared

### EPV0689

#### Exploratory study of a meditation intervention program on Portuguese breast cancer survivors

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**Introduction:** Cancer patients, namely breast cancer survivors, are highly vulnerable to psychological morbidity. Noninvasive interventions are incentivized to promote the mental health and quality of life of cancer survivors. Recent studies provided evidence supporting the use of meditation as a promising adjuvant tool for improving the mental health and quality of life of cancer survivors.

**Objectives:** The present study aims to carry out a clinical trial to evaluate the effects of an online group of meditation program of Kundalini Yoga on breast cancer women, through a longitudinal and randomized research design, in the following variables: psychological morbidity, self-compassion, spirituality, and quality of life.

**Methods:** This study had the participation of 35 participants distributed randomly for 3 equivalent groups (N=11 EG, N=13 ACG, N=11 PCG), with the diagnosis of breast cancer, aged between 34 and 78 years.

The sample of women with breast cancer was randomly selected from a breast cancer support association.

The protocol was applied online individually on pre-test, post-test, and 1-month follow-up moments, in 3 comparison groups: 1) the Experimental Group(EG), who practiced yoga Kundalini meditation; 2) the Active Control Group(ACG) that practiced relaxation; 3) the waiting list Passive Control Group(PCG). Intervention sessions were carried out for the EG and the ACG, in an online format, lasting about 30 minutes, weekly, for 8 weeks. Statistical analyses were considered at a 0.05 significance level. All analyses were performed with IBM SPSS, version 27.

**Results:** The results showed that the group that did yoga kundalini meditation (EG) had benefits, unlike the control groups, in the variables of emotional functioning, global spiritual well-being, and personal well-being. There were statistically significant differences in the overall self-compassion score when comparing the 3-time points in all groups. The sub-scale of self-kindness and transcendental well-being shows an increase significantly between the 3 moments in the active control group. The passive control group performed significantly worse over time in the self-kindness.

**Conclusions:** Based on preliminary results, the Experimental Group (EG) exhibited improvements in Self-Compassion, Spirituality, and Emotional Functioning (as evaluated by the QLQ C-30) following eight consecutive weeks of online Kundalini Yoga Meditation practice. These findings contribute to the growing body of evidence supporting meditation's potential to enhance life quality and spiritual well-being in individuals with breast cancer. These preliminary findings suggest that further research in this promising field is warranted.

**Disclosure of Interest:** None Declared