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doi: 10.1192/j.eurpsy.2021.1832

**Introduction:** It is common knowledge that depressive disorders are prevalent in cardiac patients. The fact of a prospective heart surgery can have a negative effect on depressive manifestations in cardiac patients.

**Objectives:** To describe representation and structure of depression in preoperative cardiac surgery patients and its correlation with the patients' personal time perspective

**Methods:** We used the Beck Depression Inventory to estimate the level and structure of depression in 60 cardiac surgery patients of both sexes and the Zimbardo Time Perspective Inventory to identify the patients' personal time perspective.

**Results:** We revealed depression of various manifestations in 53.4% of preoperative cardiac patients; 3.3% of them had severe depression, 11.7% – moderate depression, 8.3% – mild depression, 30.0% – minimal depression. The patients' average level of depression was certainly higher than the standard one ( $t=3.295$ ;  $p=.000$ ). According to degree, the structure of depressive manifestations included asthenia, irritability, sleeping disorders, low sex drive, weight loss, pessimism, tearfulness, difficulty working, and difficulty taking decision. Two patients showed suicidal thoughts. We revealed a positive correlation between the depression level and a Negative-Past time perspective ( $r=.39$ ) and a negative correlation with the Positive Past time perspective ( $r=-.27$ ).

**Conclusions:** We identified depressive manifestations in every second preoperative cardiac patient. Every sixth one has moderate or severe depression, which calls for special attention. Research in personal time perspective has good prospects for psychological interventions.

**Disclosure:** No significant relationships.

**Keywords:** preoperative cardiac surgery patients; Depression; time perspective; psychological interventions

## EPV0254

### Biochemical markers of depression - an up-to-date review

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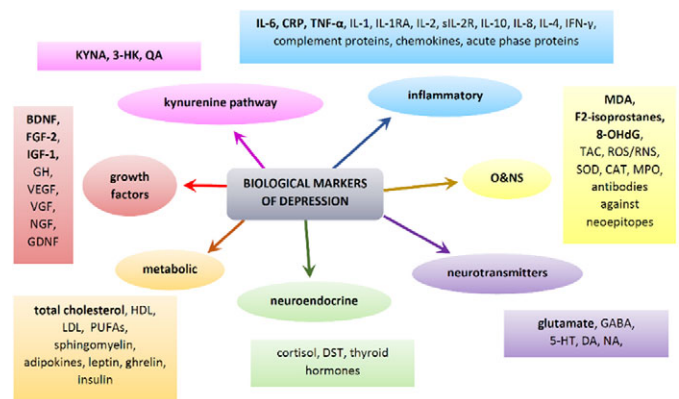
doi: 10.1192/j.eurpsy.2021.1833

**Introduction:** Depression or Major Depressive Disorder (MDD) is the most prevalent psychiatric disorder and a leading cause of disability worldwide. Currently affecting around 300 million people worldwide, depression is a major clinical, emotional, and socioeconomic strain for society. There is a growing interest in the biological underpinnings of depression, which are reflected by altered levels of biomarkers.

**Objectives:** The aim of the study was to present an up-to-date review of potential MDD biomarkers.

**Methods:** PubMed, Scopus, and Web of Science databases were searched.

**Results:** Enhanced inflammation has been reported in MDD, as reflected by increased concentrations of inflammatory markers – interleukin-6, C-reactive protein, tumor necrosis factor- $\alpha$ , and soluble interleukin-2 receptor. Dysregulation of the hypothalamus-pituitary-adrenals axis, along with increased cortisol levels, have also been reported in MDD. Oxidative and nitrosative stress also plays an important role in the pathophysiology of MDD. Notably, increased levels of lipid peroxidation markers are characteristic of MDD. Kynurenine metabolites, increased glutamate and decreased total cholesterol are also features of MDD. Finally, alterations in growth factors, with a significant decrease in brain-derived neurotrophic factor and an increase in fibroblast growth factor-2 and insulin-like growth factor-1 concentrations have also been found in MDD.



**Conclusions:** A group of substances holds promise as reliable biomarkers for MDD. However, biomarker research in depression faces many difficulties, such as insufficient understanding of MDD etiopathogenesis, substantial heterogeneity of the disorder and low specificity of biomarkers. The construction of biomarker panels and their evaluation with use of new technologies may have the potential to overcome the above mentioned obstacles.

**Disclosure:** No significant relationships.

**Keywords:** inflammatory; Depression; biomarkers; oxidative stress

## EPV0255

### Esketamine in patient with treatment resistant depression: Outcome of the temporary authorization for use programme in France

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doi: 10.1192/j.eurpsy.2021.1834

**Introduction:** Esketamine nasal spray has been developed for patients with treatment resistant depression.

**Objectives:** A cohort Temporary Authorization for Use (ATUC) allowed to collect for a 6-month period the first data in real life

**Methods:** On 02/08/2019 the French National Agency for Medicines and Health Product Safety granted an early access program for Esketamine nasal spray framed by a specific protocol for patients without therapeutic alternatives. Each treatment request was approved based on inclusion and exclusion criteria. Clinical evolution, treatment management and safety were then spontaneously reported by psychiatrists.

**Results:** From 09/23/2019 to 03/25/2020, 66 patients were treated. The median age was 53 years and 41 (62.1%) were females. At treatment request, 52 patients (79%), presented a severe current depressive episode based on clinical judgment. The median duration of the disease was 12.2 years and the current episode was 2.6 years. Since the beginning of the current depressive episode, all patients (66) were prescribed  $\geq 2$  antidepressants (mean 4.2). Esketamine was initiated in a complete hospitalization setting in 27 patients (55.1%) and in day hospitalization in 22 patients (44.9%). Safety profile was consistent with the one described during clinical study. The most frequently adverse events reported ( $>10\%$ ) were dizziness, sedation, sleepiness, anxiety and dissociation. Most of them appeared after treatment administration and were transient.

**Conclusions:** ATUC ended on 12/18/2019 after Marketing Authorization granted by European Medicines Agency. Data reported by French psychiatrists are the first collected in this specific population and provide descriptive information on patient characteristics, burden of disease; Esketamine management and practical use at hospital level

**Disclosure:** Data analysis performed by RCTs and poster conception coordinated by Medergy and funded by Janssen

**Keywords:** treatment resistant depression; spray nasal; glutamatergic pathway; esketamine

## EPV0256

### Lifetime depression and age-related changes in body composition, cardiovascular measures, grip strength and lung function

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doi: 10.1192/j.eurpsy.2021.1835

**Introduction:** Individuals with mental disorders, on average, die prematurely and may experience accelerated biological ageing.

**Objectives:** We examined sex-specific associations between age and physiological measures in individuals with lifetime depression and healthy controls.

**Methods:** UK Biobank recruited  $>500,000$  participants, aged 37–73, between 2006–2010. Generalised additive models (GAMs) were used to examine associations between age and multiple cardiovascular, body composition, grip strength and lung function measures. Analyses were conducted separately in males and females with lifetime depression compared to healthy controls.

**Results:** Analytical samples included up to 342,393 adults (mean age = 55.87 years, SD = 8.09; 52.61% females). We found statistically significant differences between individuals with lifetime depression and healthy controls for most physiological measures, with

standardised mean differences between  $-0.145$  and  $0.156$ . There was some evidence that age-related changes in body composition, cardiovascular measures, lung function and heel bone mineral density followed different trajectories in individuals with lifetime depression. However, these differences did not uniformly narrow or widen with age. For example, BMI in females with lifetime depression was approximately  $1.1 \text{ kg/m}^2$  higher at age 40 and this difference narrowed to about  $0.4 \text{ kg/m}^2$  at age 70. In males, systolic blood pressure was approximately 1 mmHg lower in individuals with lifetime depression at age 45 and this difference widened to about 2.5 mmHg at age 65.

**Conclusions:** Evidence of differences in ageing trajectories between individuals with lifetime depression and healthy controls was not uniform across physiological measures and differed by sex.

**Disclosure:** JM receives studentship funding from the Biotechnology and Biological Sciences Research Council (BBSRC) and Eli Lilly and Company Limited. CML is a member of the Scientific Advisory Board of Myriad Neuroscience.

**Keywords:** ageing; Depression; public health; physiology

## EPV0257

### Effects of psilocybin-assisted therapy on treatment-resistant depression

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doi: 10.1192/j.eurpsy.2021.1836

**Introduction:** Major depressive disorder is a highly prevalent clinical condition, affecting more than 300 million individuals worldwide. About 1/3 of patients with MDD fail to achieve remission despite treatment with multiple antidepressants and are considered to have treatment-resistant depression (TRD). Novel antidepressants with rapid and sustained effects on mood and cognition could represent a breakthrough in the TRD and may potentially improve or save lives. Psilocybin, a classic hallucinogen, more commonly found in the Psilocybe mushrooms has a combined serotonergic and glutamatergic action. The preliminary evidence of antidepressant effects of psilocybin-assisted therapy indicates the potential of psilocybin-assisted therapy as a novel antidepressant intervention.

**Objectives:** The authors elaborate a narrative literature review about the effects of Psilocybin-based therapy on patients diagnosed with treatment-resistant depression.

**Methods:** PubMed database searched using the terms “Treatment-Resistant Depression AND Psilocybin” and targeting clinical trials. References of selected articles and review articles were also assessed.

**Results:** 2 articles evaluate psilocybin effects in 32 patients with TRD and showed that two doses of psilocybin alongside psychological support significantly reduces depressive symptoms. All patients presented some reduction in symptoms from baseline to one week after the second dose and reproduced immediate and substantial improvements in depression that ultimately could sustain up to 6 months.