

Objectives: Research progress of metabonomics of blood endogenous small molecules in depression

Methods: Metabonomics is a newly developed discipline after genomics and proteomics, and is an important part of system biology. Metabonomics provides a new approach to explore the etiology, mechanism, prognosis and screening potential biomarkers of MDD. Blood contains almost all the small molecule metabolites in the body. The changes of metabolites in blood can represent the changes of metabolites in other body fluids. Moreover, this sample is easy to obtain and has less trauma, so it is the most common biological sample in clinical detection.

Results: At present, there are many studies on the metabonomics of endogenous small molecules in MDD blood, which provides the possibility for further screening of MDD related biomarkers.

Conclusions: In this paper, the research progress of related biomarkers in MDD blood is reviewed.

Disclosure: No significant relationships.

Keywords: metabonomics; blood endogenous small molecules; Depression

EPV0529

Paliperidone induced sinus tachycardia in a patient with first episode of psychosis (FEP)

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Introduction: This is a presentation of the FEP of a 23 y.o. patient. The patient had a Duration of Untreated Psychosis (DUP) of 6 months and Duration of Untreated Illness (DUI) of six years. The therapeutic response and the adverse effects of Paliperidone are being described.

Objectives: To investigate the tolerance of Paliperidone in a patient with FEP.

Methods: The patient was assessed regularly by the psychiatric team consisting of a CT doctor and one General Adult Consultant. Appropriate psychological assessments and investigations took place.

Results: Upon admission the patient appeared guarded. She also presented with weight loss and dehydration. Initial PANSS score was 173, positive subscale 41. The patient was initially treated with monotherapy 6mg of Paliperidone. However, the heart rate was around 100 bpm culminating as high as 156 bpm. The ECG indicated sinus tachycardia. The patient presented with serious EPSs and diarrhea. Simpson-Angus Scale score 10. Metoprolol 25mg was prescribed twice a day. The clinical team proceeded in cross titration replacing Paliperidone with Olanzapine. A brain CT scan was also performed, unremarkable. After 10 days of therapy the PANSS score reduced to 102, positive subscale 21.

Conclusions: Initial sinus tachycardia is a common adverse effect of Paliperidone. However in this case the tachycardia was refractory in time even after the 7th day, making an alternative SGA trial necessary.

Disclosure: No significant relationships.

Keywords: paliperidone; FEP; Tachycardia

EPV0530

An innovative anticonvulsant - a GABAA receptor modulator with an alternative mechanism of action and enzyme-inducing detoxifying properties

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Introduction: The development of original drugs - new generation GABAA receptor modulators (GABAAR), with an anti-alcohol orientation, non-addictive and stimulating detoxification processes, makes it possible to increase the effectiveness of therapy and reduce the cost of treatment.

Objectives: Study the mechanism of interaction between m-Cl-BHU and GABAA - receptor

Methods: Molecular docking was performed to study the molecular docking of m-Cl-BHU with at the binding site of the target protein GABAAR. Radioreceptor studies were carried out using [3H] flunitrazepam binding with synaptosomal receptors in the cerebral cortex of Wistar rats in experimental alcoholism under the influence of therapy with m-CL-BHU. Kinetic parameters (T1/2, Clt, MRT, MET, AUC) of a model substrate - antipyrine were determined in the saliva of healthy volunteers and alcoholic patients.

Results: Results of molecular docking (Schrödinger program (Glide) showed: m-CL-BHU (meta-chlorobenzhydryl urea) is complementary to the benzodiazepine GABAAR. Binding energy is low) (scoring (GScore) -11.14 kKcal/mol); m-CL-BHU interacts with key amino acids at the $\alpha 1\gamma 2$ interface: Tyr159, Tyr209, H101 Phe77 and is characterized by a high degree of model fit - dG insert: 0.741 Binding of [3H] flunitrazepam to the benzodiazepine site of GABAAR in rat brain in experimental alcoholism, who received 14 days of m-CL-BHU at 100 mg/kg /day, increased in receptor affinity. Changes in the kinetic parameters (T1/2, Clt, MRT, MET, AUC) of a model substrate - antipyrine in the saliva of healthy volunteers and alcoholic patients using Galodif (m-CL-BHU) at 300 mg/day 21 days

Conclusions: m-CL-BHU - GABAA receptor modulator with an alternative mechanism of action

Disclosure: No significant relationships.

Keywords: anticonvulsant; cytochrome; receptor; homeostasis; neuromorphology

EPV0531

A report of use of baclofen in intractable hiccupsR. Dhakad^{1*}, V. Niranjana², P. Rastogi² and V. Pal²¹Psychiatry, MGM Medical College, Indore, India and ²Psychiatry, MGM Medical College, INDORE, India

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Introduction: Hiccups are an involuntarily powerful spasm of the diaphragm, followed by a sudden inspiration with a closure of the glottis. Hiccups lasting longer than one month is termed intractable hiccups. Intractable hiccups can be caused by structural or functional disturbances of the medulla, afferent or efferent nerves to the respiratory muscles or metabolic and endocrine disorders, drugs, general anaesthesia and emotional problems.

Objectives: Authors present a case report about curing a patient of intractable hiccups using baclofen along with literature review.

Methods: A case report along with literature review forms the basis of discussion.

Results: A 30-year female diagnosed with schizophrenia stable on 2mg risperidone for 3 years presented to the outpatient department with complain of intractable hiccups for 6 months. Frequency of hiccups was around 10-12 times per minute and continued throughout the day leading to significant socio-occupational distress. patient had been receiving medical treatment for last 4 months for the same including Metoclopramide, chlorpromazine along with trying breath holding and drinking cold water but symptoms persisted. Her ECG, chest X-ray, complete blood counts were unremarkable, CT scan of brain was normal. Patient was started on baclofen 10mg thrice daily. Within 1-week patient had dramatic response and complete remission was achieved in 2 weeks.

Conclusions: Baclofen is effective in hiccups because it is an analogue of GABA, that decreases excitability and inhibits the hiccup reflex, which reduces synaptic transmission. Baclofen is used to treat hiccups, and can be used either as a first-line treatment or if patient does not respond to other medications.

Disclosure: No significant relationships.

Keywords: baclofen; intractable hiccups; schizophrenia; GABA adrenergic

EPV0532

Hypersalivation and coarse tremors as uncommon side effects of acamprosate : A case report

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Introduction: Mr. X, a 39-year-old man presented to us with a history of alcohol use from the last 12-15 years in a dependence pattern with tolerance, uncomplicated withdrawal symptoms and salience. He was detoxified, given parenteral thiamine supplements and oral lorazepam to reduce withdrawal symptoms. He was contemplating to quit alcohol and thus about 4-5 days after his detoxification, tablet acamprosate 1998 mg/day was added, in three

divided dosages. He was discharged after 10 days and had no withdrawal signs or cerebellar deficits. In the next follow-up after two weeks, he reported to be abstinent from alcohol, but now complained of new onset coarse tremors and excessive salivation. He had no other extra pyramidal or cerebellar symptoms, no hepatic or renal dysfunction and no neurological deficits. The Patient had a drooling score of 6 on Drooling Severity and Frequency Scale(DSFS).

Objectives: Acamprosate and naltrexone are the only two drugs approved by the US Food and Drug Administration for achieving abstinence in patients with Alcohol Dependence Syndrome. Acamprosate is well tolerated and has a few drug interactions. It has a comparatively benign side effect profile which includes diarrhea, intestinal cramps, itching, dizziness, muscle weakness, headache, flatulence, nausea, anxiety, and insomnia. Here we report hypersalivation and coarse tremors as unusual side effects of acamprosate.

Methods: Cross-sectional

Results: Here we report hypersalivation and coarse tremors as unusual side effects of acamprosate.

Conclusions: The probable mechanism responsible for this is thought to be acamprosate induced decrease in dopamine release in ventral tegmental area due to diminished glutamate activity.

Disclosure: No significant relationships.

Keywords: Acamprosate; Hypersalivation

EPV0533

Lithium in severe affective disorders: Balancing safety with efficacy

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Introduction: Lithium has been one of the oldest substances used in psychiatric treatments and remains the first-line treatment for prevention of manic and depressive episodes of bipolar disorder (BD), but it has also a wide spectrum of side-effects.

Objectives: The goal is to review efficacy, and clinical use of lithium, such as its side effects, and its benefit-to-risk ratio.

Methods: Non-systematic literature review based on scientific databases such as PubMed.

Results: The first modern use of lithium was for the treatment of mania. Lithium has also proven useful in major depression, particularly for augmentation of antidepressants, for aggressive behavior and it has a specific antisuicide effect. Lithium's prophylactic and antisuicidal effects are most unique. However, the use of lithium became problematic due to the serious toxicity since lithium also a narrow therapeutic index, with therapeutic levels between 0.6 and 1.5 mEq/L.

Conclusions: Awareness of the benefits and risks of lithium is essential for the use of this lifesaving agent. Lithium levels must be carefully monitored and lithium dosage adjusted as necessary.

Disclosure: No significant relationships.

Keywords: lithium; bipolar affective disorder; Suicide; side effects