tomography showed bilateral symmetric calcification of striatum, globus pallidus and dentate nucei. Other causes of intracranial calcification were excluded. PET scans were obtained using [11C]-labeled 2β-carbomethoxy-3β-(4-flurophenyl)-tropane, [11C]-labeled raclopride and [18F] fluorodeoxyglucose.

**Results:** The decreased binding potential was severe in bilateral head of caudate nuclei and anterior putamen. In case 1, the decline was also found in posterior putamen. There were widespread decreases of glucose uptake in frontal, temporal and parietal cortices bilaterally in case 1. Significant hypometabolism was observed in the right frontal, temporal and parietal cortices. After the ECT session, the previous areas of significant hypometabolism in the right hemisphere had improved. In case 2, there was no significant change of glucose metabolism in cerebral cortex.

**Conclusions:** The difference in affected region within basal ganglia might be associated with the diverse clinical pictures in IBGC. Particularly, in the psychiatric manifestation, dopaminergic dysfunction in caudate nucleus and anterior putamen could be participated.

## P0166

Effect of Buspirone, a Serotonin partial agonist, on cognitive function in schizophrenia: A randomized, double-blind, placebo-controlled study

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The goal of this randomly-assigned placebo-controlled double-blind study was to determine if the addition of buspirone, a widely available 5-HT1A partial agonist, would enhance cognitive function, in subjects with schizophrenia treated with atypical antipsychotic drugs (AAPDs). Seventy-three patients with schizophrenia, who had been treated with an AAPD for at least three months, were randomly assigned to receive either buspirone, 30 mg/day, or matching placebo. All other medications remained unchanged. Attention, verbal fluency, verbal learning and memory, verbal working memory, and executive function, as well as psychopathology, were assessed at baseline, and 6 weeks, and 3 and 6 months after baseline. A significant Time x Group interaction effect was noted on the Digit Symbol Substitution Test, a measure of attention/speeded motor performance, due to better performance of the buspirone group compared to the placebo group at 3 months. No significant interaction effects were noted for other domains of cognition. Scores on the Brief Psychiatric Rating Scale (Total, Positive) were improved during treatment with buspirone but not placebo, but the effects did not reach statistical significance.

The results of this study showed a possible benefit of buspirone augmentation of AAPDs to enhance attention. However, we did not replicate the results of the previous study with tandospirone that improved executive function and verbal learning and memory, which may be due to the differences between tandospirone and buspirone, between typical antipsychotics and AAPDs, or a combination of the above. Further study to determine the usefulness of 5-HT1A agonist treatment in schizophrenia is indicated.

## P0167

The effect of mGluR I and II agonist on cognitive deficit in animal model of psychosis-like behavior

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One of the major arguments that glutamatergic system may be disrupted in schizophrenia represents fact that antagonists of the NMDA receptor impairs cognitive function in healthy volunteers in a manner that is very similar to the cognitive deficit observe in patients with schizophrenia. Consequently application of NMDA antagonists were established as an animal model of schizophrenia

NMDA receptors are present by nearly all subtypes of neurons, and that is why direct pharmacological manipulation of this group of receptors may produce a global disruption in brain function and produce profound side effects. Hence indirect modulation of glutamatergic transmission by metabotropic glutamate receptors (mGluR) is numbered among promising approaches.

Testing the cognitive abilities of animals with experimentally induced psychotomimetic state requires specific behavioral paradigms, which should have a high cognitive demand for their efficient solution. For that reason we used test active alothetic place avoidance (AAPA). This spatial task is suitable for detection of attention and information processing.

Application of NMDA antagonist MK-801 (0.1 mg/kg) leads to slight cognitive deficit without changes in locomotion. We investigated effect of ACPD (agonist of mGluR group I and II) in doses 0.01 mg/kg a 0.1 mg/kg. Administration of ACPD alone did not influence locomotor activity and cognitive parameters. ACPD significantly improved performance of AAPA task after MK-801. Studied drug even reduced massive cognitive disturbances and hyperlocomotion after MK-801. Our results show that agonists of mGluR I and II could enhanced cognitive function in patient with schizophrenia. Project was supported by IGA MZCR NR/9178-3; MSMT 1M0517.

# Poster Session II: Depression

## P0168

Assessment of depression in prymary care medical practice in Bucaramanga/Colombia

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Depression is a public health problem. WHO estimate that in 2020 this one would be the first cause of mortality in the world. Aditionally, this disorder generate impaired ability to continue professional work and/or daily life activities, impaired social life and previous psychiatric problems were significantly correlated with impaired physical function, fatigue and pain.

The aim of this study was to investigate the prevalence of depression in patients seen at the Clínica Chicamocha in Bucaramanga/Colombia, using the Hospital Anxiety and Depression Scale (HADS), the Beck Depression Inventory (BDI-II) and a sociodemographic questionnaire. In addition, information about the patients' diseases and treatment was obtained. The prevalence of depression among 82 evaluable patients was 41.5% according to BDI-II (19.5%

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