P33.06

Effect of astrocyte grafts on the audiogenic seizures in Wistar rats

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In the present investigation the genetic model of epilepsy – audiogenic seizures (AS) in Wistar rats – was used for determination of compensatory role of astrocyte allografts. Before surgery the stability of AS in male rats was assessed three times at one week intervals. Primary purified cerebellar astrocytes from 7–8 days newborn rats after 12 days in culture were grafted into the parietal cortex bilaterally (14 rats). The intensity of AS in rats with the grafts was compared with the same of the control group with the false surgery (FS) – injection of the salt solution into the parietal cortex (11 rats). The stability of AS was assessed in 1, 4, 10, 17, 22 and 26 weeks after the transplantation. The testing of AS intensity showed the disappearance of AS in 11 from 14 rats in the grafted group and in 3 from 11 rats in the FS-group ($p<0,05$). It was concluded that the transplantation of astroglial culture led to the long-term disappearance of audiogenic seizures in AS-Wistar rats.

P33.07

Usage of derivatives of D-glucosamine in emotional hypertension due to stress

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This research was carried out with the aim to develop new medications to treat the stress-conditioned emotional hypertension (EH). For this purpose there was studied the dynamics of blood pressure (BP) level, content of adrenaline (A) and noradrenaline (NA) in animal urine under the effect of derivative glucosamine in the EH in the experiment.

Study of hypotensive activity of the compound was performed basing upon the EH model caused by emotional stress. The studies were completed on 22 non-linear mature male rats in the conditions of chronic experiment. The animals were administered per os derivative glucosamine D – D-(+)-glucosilammonia salt-4chlore-N-(carboxyphenyl) of anthranilic acid (GA) in the amount of 20 mg/kg daily during two days. Assessment of hypotensive activity of the GA was carried out by changes of the AP level of A and NA concentration in urine.

Animals with the EG model showed manifested and statistically significant reduction of the AP down to normal. (139.06±3.1 Hg before administration, 98.81±9.75 Hg after, $p<0.001$). In addition, there was noted manifested and statistically significant dynamics of changes in concentrations of catecholamines to normal (before administration of the substance on the first day A – 0.52±0.03 nmol/100 g; NA – 3.41±0.18 nmol/100 g; on the second day A – 0.53±0.04 nmol/100 g, NA 3.03±0. 19 nmol/100 g. After administration of the GA on the first day level A – 0.34±0.02 nmol/100 g, NA – 2.77±0.19 nmol/100 g. On the second day A – 0.30 + 0.02 nmol/100 g, NA – 2.01 + 0.09, nmol/100 g. On the second day A – 0.30±o.o2 nmol/100 g, NA – 2.01±0.09, nmol/100 g, $p<0.05$).

The research showed that the GA has a hypotensive activity, normalizes the AP, reduces concentrations of A and NA in urine down to normal. The results obtained enable to further study properties of the GA to find new pharmacological effects.

P34. Obsessive compulsive disorders

P34.01

Brief obsessive compulsive scale (BOCS)

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Objectives: The Yale-Brown Obsessive Compulsive Scale (Y-BOCS) is regarded as the Golden Standard for assessing OCD. However, it's time-consuming and seldom used. A user-friendly instrument with the benefits of Y-BOCS is required.

Methods: The BOCS is a clinician-rated instrument for identifying OCD symptoms and severity, and derives from the Y-BOCS. Every BOCS question is an union of obsessions and compulsions, therefore the ten questions in Y-BOCS correspond to only six questions in BOCS (including an item from the revised Y-BOCS). Each item in the BOCS is rated from 0 (no symptoms) to 4 (extreme symptoms).

The items covering obsessions and compulsions are combined in the BOCS, therefore the patient herself assess the relation in percent between obsessions and compulsions. Finally an analysis was performed to illuminate which symptoms in the Y-BOCS checklists covers the various symptom clusters in OCD.

Results: The BOCS correlates significantly with the Y-BOCS total score, and with its sub-scores for obsessions and compulsions. Only 15 symptoms from the Y-BOCS' checklist were needed to identify subtype of OCD. The BOCS may well replace Y-BOCS in clinical practice.

P34.02

Whole blood tryptophan predicts paroxetine/clomipramine outcome in OCD

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Objectives: Low availability of tryptophan predicts better outcome when depression is treated with serotonergic antidepressants. This relation may be even more relevant in OCD, which responds selectively to serotonin reuptake inhibitors. Tryptophan is usually measured in plasma, related to five competing amino acids. Tryptophan in whole blood (WB-TRY) is easier to measure.

Methods: In a randomised, double blind trial, comparing clomipramine, paroxetine and placebo in OCD, WB-TRY was measured in 36 patients, at baseline, after 1 week and after 4 weeks of treatment.

Results: WB-TRY did not change over time in any treatment group. However, lower WB-TRY at baseline predicted better clinical outcome after 12 weeks of treatment in patients treated with serotonin reuptake inhibitors ($r=-0.41$, $p=0.036$), but not in placebo treated patients.

Conclusions: The findings indicate that WB-TRY is related to the clinical result when OCD is treated with serotonin uptake inhibitors. Accordingly, WB-TRY may have some bearing on the state of the central serotonergic system. Further studies are necessary to disentangle possible mechanisms and to discern whether WB-TRY is useful in clinical practice.

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