

The work was submitted to international scientific conference «Present-day problems of experimental and clinical medicine», Thailand – Cambodia, February 18-28, 2009. Came to the editorial office on 16.01.2009.

INFLUENCE OF PHENIBUTE ON IMMUNE STATUS AND BEHAVIOR REACTIONS OF RATS WITH IMMUNE INSUFFICIENCY

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Appeared in last years numerous data about single neuroimmune regulator many physiological and pathological processes in organism eventuate topical research of neuroimmunomodulate properties of medicinal remedies.

The aim of this work is experimental research for influence derivative GABA – phenibute on immune and psychoemotional status of rats with immune insufficiency.

The experiment has been made with 70 rats of the line Wistar mass 200-250g. The animals were distributed on the groups: control group № 1 – the immunizing animals, receiving physiological solution; control group № 2 – the immunizing animals with immune insufficiency, which injected cyclophosphamide (once intraperitoneum in the doze of 125 mg/kg), with the aim of suppression of immune system. And the experienced group – animals with immune insufficiency receiving phenibute (intraperitoneum in the doze of 25 mg/kg in the space of an hour after injected immunodepressant). Immune status of animals were studied by reactions of hypersensitivity delayed type (RHDT) and passive hemagglutination (RPHA). By way of antigen load were used erythrocytes of sheep. Behaviour reactions of animals were studied in the test «Open field».

In the course of the carried our tests it was fixed that the single inside peritoneum leading cyclophosphamid in the doze of 125 mg/kg is conducive to simulate immune insufficiency showing of lowering index RHDT 28%, ($p_1 < 0,05$), suppression of production antierythrocyte antibody in RPHA 58% ($p_1 < 0,05$), and also change psycho emotional condition accompanying of lowering of motional and investigation activity in the test «Open field» ($p_1 < 0,05$).

The single inside peritoneum of phenibute in the doze of 25 mg/kg to the animals with the immunological insufficiency is accompanying with the stimulating action with the regard to the cell section of the immune reactivity, it reveals itself with the in-

crease of the reaction index RHDT more than 50% not only by comparison with the animals from the control group № 2 ($p_2 < 0,05$), but more than 40% with respect to the exponents in the rats groups, receiving «placebo» ($p_1 < 0,05$).

In research of influence phenibute to formation antierythrocyte antibodies in RPHA is determined its modulate influence, it reveals itself with the increase of the reaction more than 50% to the group of animals, which for formation of immunosuppression injected cyclophosphamide. As compared with control №1 it didn't supervise to change of level of antibodies.

In research of influence phenibute on psycho emotional condition of immunodepression rats detected ability of preparation to correct changing behavior reaction developing in condition of cyclophosphamidinduce immune insufficiency. Under influence of phenibute occurs reconstruction of horizontal and directional investigation activity ($p_2 < 0,05$); decrease of defecation ($p_2 < 0,05$) and grooming ($p_2 < 0,05$), duration of friezing ($p_2 < 0,05$), and also increase of amount of passages through central zone «Open field» ($p_2 < 0,05$).

That's why, received results during experimental test showing of the ability of phenibute to liquidate acute immune disturbance, but correct changing behavior reaction, appearing in the result of immunopathology.

The work was submitted to IV international scientific conference «Basic Research», Dominican Republic, April 12-22, 2009. Came to the editorial office on 08.02.2009.

INFLUENCE OF HOMEOPATHIC VEROSHPIRON ON THE MAMMARY GLANDS WITH CYSTIC MASTOPATHY IN THE EXPERIMENT

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According to the World Health Organization mammary gland cancer in women is the first (as far as localization is concerned) in the structure of morbidity which constitutes 18% of the total number of malignant tumours. In order to decrease morbidity it is necessary to investigate different ways of influence on the mammary gland precancer processes to which cystic mastopathy is related.

In the intact series veroshpiron contributes to development of the mammary glands. Under its influence there is slight enlargement of the ducts, height of the epithelium and increase in secretion. In case of cystic mastopathy 4 week course of veroshpiron in therapeutic doses causes manifested regress of the cysts. There is complete reverse development of the

cysts. The ducts are in big groups making lobules. The ducts are much narrowed and lined with cuboidal epithelium. The lumens of them are hardly distinguished. The scheme of introduction of potentias of veroshpiron:

- Group 1 – 6C 3 times a day during a month
- Group 2 – 6C, 12C, 30C 3 times a day during a month
- Group 3 – 30C 3 times a day during a month

We investigated mammary glands in 25 virgin females of not thoroughbred white rats which were conditionally divided into 3 groups of experiment and 2 groups of control. Groups of the experiment got homeopathic veroshpiron according to 3 schemes perorally during a month. Groups of the control – group 1 cystic mastopathy control and group 2 cystic mastopathy control 1 month later after its receipt. Cystic mastopathy model with hexestrol introduced – control 6 weeks later: dilation of the ducts is cyst-shaped. They are lined with flattened epithelium. There are protein-fat masses in the lumens of the cysts.

Cystic mastopathy control 4 weeks later after its receipt: the ducts dilation of which is cyst-shaped are lined with flattened epithelium. The secret is sporadically present in the lumens. The other cysts have no contents.

The first group of the experiment with cystic mastopathy that got potentia 6C 3 times a day: the ducts are in groups of 10-12 ducts making lobules. The ducts are narrowed. Epithelium is cuboidal.

One of the observations shows incomplete regress of the cysts

- The duct is dilated to some extent
- Epithelium is cuboidal
- There is a little amount of the secret in the lumen
- The duct is surrounded by small streaks of fibrous tissue

The second group of the experiment with cystic mastopathy that got 6C, 12C, 30C 3 times a day: the ducts are in groups. Each group consists of 20-22 ducts in the form of a lobule. The ducts are narrowed. The lumens are slightly distinguished.

Mammary gland stroma: vessels are much dilated and with blood congestion.

Manifested regress of the cysts. The ducts are in small groups. Epithelium is cuboidal. There is remnant of the secret in the lumens.

Incomplete regress of the cysts. Along with much narrowed ducts with cuboidal epithelium there are few dilated ducts the lumens of which contain a little amount of secret.

The third group of the experiment with cystic mastopathy that got 30C 3 times a day. Manifested regress of the cysts. The ducts are in small groups. Epithelium is cuboidal. The ducts are narrowed.

Transitional stage of the regress of the big cyst. The ducts are jellyfish-shaped. Epithelium is cuboidal. There is remnant of the secret in the lumen.

Incomplete regress of the cysts against the background of wave scheme of introduction of homeopathic veroshpiron. Simultaneously dilated ducts with flattened epithelium, in the lumen there are protein-fat masses. The areas with much narrowed ducts with cuboidal epithelium.

Veroshpiron in homeopathic dilutions exerts its influence on the mammary glands with cystic mastopathy. Many observations show quite a high grade of regress in comparison with the control. Few observations show incomplete regress, but influence of veroshpiron causes restoration of the epithelium to the norm in comparison with the control. According to the mechanism of action veroshpiron is the similar preparation in hexestrol model of cystic mastopathy.

The results are of interest for oncologists and mammologists. Veroshpiron will be further applied in restorative medicine by joint efforts with international academy of classic homeopathy. It will be used in treatment of the patients with diseases of mammary glands in a homeopathic clinic.

The work was submitted to international scientific conference «Present-day problems of experimental and clinical medicine», Thailand – Cambodia, February 18-28, 2009. Came to the editorial office on 02.02.2009.

FUNCTIONAL DISREGULATION OF PERITONEUM AT VARIOUS INTENSITY OPERATIONAL TRAUMAS

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Introduction: The influence of an operational trauma on the peritoneal operant behavior up to the present moment is still an insufficiently explored problem.

Purpose: To define the operational trauma dimensions' influence on the peritoneal resorptive.

Materials and methods: A new experimental model allowing estimating the peritoneal resorptive capacity was developed, patented and applied. There were 90 sexually mature Wistar female rats involved in the experiment. To evaluate the peritoneal physiological resorptive capacity the intact animals were administered a standard dose of the ethaminal solution (40 mg/kg) throughout 4 days intraperitoneally. On the 4th day all the animals were exposed to a surgical intervention: 1 group – a standard operational trauma, 2 group – subtotal hysterectomy and 3 group – total hysterectomy. The peritoneal resorptive function was evaluated indirectly by means of intraperitoneal ethaminal introduction and measurement of the time