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 resorption.

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

length necessary for the surgical sleep to begin for 7 days.

Results: the peritoneal resorptive function research experimental model application defined that the time of physiological resorption made 5,15±0,89 min in the intact animals. The resorption at the various intensity operational traumas made: in the **1 group**: 1 day - 9,8±0,5; 2 day - 8,2±0,7; 3 day - 7,1±0,7; 4 day - 5,8±0,7; **5 day - 5,2±0,5;** 6 day - 5,1±0,7; 7 day - 5,1±0,5; in the **2group**: 1 day - 10,1±0,6; 2 day - 9,0±0,5; 3 day - 7,8±0,6; 4 day - 6,8±0,4; 5 day - 6,1±0,4**; 6 day -5,1±0,4**; 7 day - 4,8±0,7; in the **3group:** 1 day - 11,3±1,0; 2 day - 9,3±1,7; 3 day - 8,3±0,7; 4 day - 7,3±0,5; 5 day - 6,5±0,5**;** 6 day - 5,8±0,4; **7 day -5,1±0,4.**

Conclusions: So, the peritoneum responses to the operational trauma in the form of the peritoneal resorptive function inversive decline, a direct dependence of functional disorders' degree on the operational trauma' intensity being found out.

The work was submitted to international scientific conference «Homeostasis and endoecology», Egypt (Sharm el-Sheikh), February 20-27, 2009. Came to the editorial office on 23.01.2009.

THE GROUND IN DETERMINING LOAD DISTRIBUTION ON KNEE-JOINT

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Knee-joint arthrosis is the commonest pathology in locomotive apparatus. The key factor in the development of the disease is uneven load distribution on a knee-joint due to individual anatomical structure and disorders in biochemical parameters of a lower limb.

The aim of the study is to create a new method of determination of load distribution due to individual topographic and anatomical distinctions of lower limbs.

The method developed is based on computer transformation of topographic-anatomical distinctions and a combined application of medical visualization and orthopedic diagnostics. Our method is patented.

The first phase of the research is to construct a primitive load to simulate the model of a human body load. The second phase consists of determination of resultant force vector affecting a knee-joint. The vector direction depends on individual anatomo-biochemical characteristics of lower limbs. The last phase is devoted to construction of force distribution affecting a knee-joint along the surface, which individuality is determined according to computed and magnetic resonance tomographies. The apparatus-program complex for the determination of individual load distribution along a knee-joint was devised according to the method proposed.

Therefore, if to apply load distribution, the method makes it possible to forecast arthrosis development, treatment plan and pathology prevention. The grounds for surgical correction of axial deformation in the lower limbs to make load distribution normal also occur.

Possible application:

1. Diagnosis, treatment plan, pathology prevention;
2. Correction of axial lower limb deformation;
3. Individual endoprosthesis;
4. Orthopedic footwear fitting;
5. Sport medicine.

The work was submitted to international scientific conference «Homeostasis and endoecology», Egypt (Sharm el-Sheikh), February 20-27, 2009. Came to the editorial office on 26.01.2009.