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CLINICAL RESULTS IN PATIENTS WITH MAMMARY GLAND CANCER ASSOCIATED WITH PREGNANCY AND GESTOSIS AFTER ADMINISTRATION OF THE MEDICINAL REMEDY "Y"

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Abstract.

Introduction. Breast cancer has a growing trend. The number of breast cancer patients in young women increases, associated with pregnancy. Cases of pregnancy-associated mammary gland cancer (CGMaS) and gestosis are increasing, requiring treatment and minimizing preoperative risks for surgical treatment in the first trimester of pregnancy.

Material and methods. 12 patients with CGMaS and medium gestoses were included in the study. The patients were administered the medicinal remedy "Y", studying the clinical and laboratory data in accordance with the Research Protocol, approved by the Ethics Committee. Statistical processing was performed using modern mathematical methods and the generally accepted statistical processing software "Statistical Package for the Social Sciences" SPSS 17 for Windows 10.0.5 (SPSS, Chicago, IL, USA) and "GraphPad PRISM® 5.0 for Windows 5.0 (GraphPad Software, Inc.).

Results. Following the administration of the claimed method in patients with CGMaS and gestoses, the basic parameters improved – blood pressure normalized in 10 (83.3%) patients, pulse normalized in 11 (91,7%), nausea disappeared in 10 (97.3%), vomiting at 12 (100%), hypersalivation at 11 (91.7%), headache – at 11 (91,7%), sleep disturbances at 12 (100%), uterine tone at 12 (100%), low fever at 12 (100%), etc. laboratory indices also normalized at the same time.

Conclusion. The use of the medicinal remedy "Y" in the treatment of early gestoses of moderate severity is effective through detoxification and confirmed by the improvement of the patients' condition and laboratory indicators.

Keywords. Breast cancer, pregnancy, gestosis, treatment.

Introduction.

Malignant tumors associated with pregnancy, including cancer, have become research topics for oncologists, obstetricians, surgeons [2-8]. Breast cancer associated with pregnancy and gestosis is a partially studied problem. Scientists are looking for new methods of treating gestosis in this contingent of pregnant women, including as preoperative preparation.

The method is known, which consists in following a protective therapeutic regime (sleep, rest, creating physical and emotional peace), diet, administering a complex therapy aimed at removing hypovolemia, normalizing the rheological and coagulation properties of the blood, normalizing vascular permeability, regulation of hydro-saline metabolism, normalization of metabolism, prevention and treatment of polyorganic insufficiency, antihypertensive therapy, prevention and treatment of placental insufficiency, treatment of concomitant extragenital pathology [1].

The disadvantage of this method is the low degree of the obtained results, which requires adjustments of the treatment. The given method does not take into account the immunological component during normal pregnancy and in the pathogenesis of late gestosis, as a manifestation of secondary immunodeficiency and as a result of the altered activity of the subpopulation of T lymphocytes, which alters the activity of T cells, the mechanism being the selective inhibition of the T cell component, of the mother's immunity by substances produced by the placenta. The distortion of this mechanism can be one of the factors in the pathological course of pregnancy.

As the closest solution [1] is known the method for the treatment of late gestosis in pregnant women, which includes a set of treatment and preventive measures:

1. Compliance with the therapeutic and protective regimen (sleep, rest, creating physical and emotional peace).

2. Prescribing a therapeutic diet.

3. Performing complex drug therapy, which includes infusion therapy (oncological correctors, saline and glycated solutions); antihypertensives (antispasmodics, ganglio- and adrenergic blockers), antioxidant (Cytochrome C, Vitamin E), administration of drugs that normalize vascular permeability, rheological and coagulation properties of blood, regulation of hydro-saline metabolism, normalization of metabolic processes, sedatives.

4. Prevention and treatment of placental insufficiency, intrauterine hypoxia and fetal malnutrition.

5. Treatment of concomitant extragenital pathology.

6. Physiotherapy, reflexology [2].

The disadvantage of this method is that the treatment is long-term, hospitalization is often necessary, it is not always possible to obtain a stable and predictable result of the treatment. This is due to the fact that the known method does not take into account the immune component, i.e. stimulation of B cells, lymphocytes, activation of T-helper cells, etc.

We have created the method of treating gestosis in pregnant women associated with breast cancer, which allows obtaining a more pronounced and lasting therapeutic effect.

Material and methods.

In the research, 12 patients with breast cancer associated with pregnancy were included, who were indicated a treatment that we claimed.

The essence of the method is that for 5-7 days, infusion therapy is administered with the aim of rehydration and detoxification: crystalloids up to 2500-3000 ml per day; Ringer-Locke solution (1000 ml) IV; lactose (1000 ml) IV, therapy for restoring metabolic disorders: thiamine 1 ml 5% IM once a day, ascorbic acid 5 ml of 5% i/v once a day, riboflavin 1 ml 1%, once a day day, antiemetic therapy: direct dopamine antagonists: metoclopramide 2 ml (10 mg) i/m once a day, centrally acting preparations that block serotonin receptors such as ondansetron 2 ml (4 mg) i/m once a day, therapy sedative: droperidol 0.25% -2 ml i/m and additionally a dietary supplement is administered in capsules containing: L-glutathione powder (Glutathione L.) – 300 mg, soy lecithin powder (Lecithinum Glycine max L.) – 1200 mg, dry extract of asparagus (Asparagus officinalis L.) – 120 mg, dry extract of artichoke (Cynara cardunculus, scolymus L.) – 250 mg, 2 capsules 3 times a day for 10 days.

All the ingredients of the capsule are mixed well for 3-5 min, until a homogeneous mass is obtained, then they are packed in operculated, hard vegetable capsules, size No. 1 or O.

The capped capsules with size No. 1 or No. 0 are cylindrical in shape, with hemispherical ends, with a smooth, glossy surface (vegetable). The contents of the capsule are yellow to greenish dry extracts with the smell and taste of medicinal plants.

The capsules were administered orally with a sufficient amount of liquid (approximately 150-200 ml of water) with 15 min. before meals 2 to 3 times a day.

How to prepare the dietary supplement in capsules containing L-glutathione powder, soy lecithin powder, dried asparagus extract, dried artichoke extract.

The components are purchased from the company EPO (Estratti Piante Officinali) L.t.d., Italy and represent dry plant extracts from plant matter for the pharmaceutical industry, standardized 1:10, and the glutathione and soy lecithin powder are purchased from the JOYWIN company, located at - 66# Wutong Rd., Baisha Industrial Park, Jiangjin District, Chongqing, China. Glutathione, soy lecithin, dry asparagus and artichoke extract are mixed in the following ratio in the following quantities taken for one capsule, in mg – 300 glutadione, 1200 soy lecithin, 120 asparagus and 250 artichoke, mix well for 3 min, until a homogeneous mass is obtained. The obtained homogenous mass represents dry extracts of yellow-green color with a specific smell and taste of medicinal plants, and later it is encapsulated in hard vegetable capsules of different sizes starting with sizes 0; 1. 10 capsules in PVC foil welded with aluminum foil (blister). In secondary packaging: 3, 6, 9 or 10 blisters together with the leaflet for the user which is placed in the individual cardboard box.

The technical result consisted in obtaining an effective method of treatment of gestoses in pregnant women associated with breast cancer, which manifests a pronounced and lasting therapeutic effect.

The result of the claimed method is due to the successful selection of the quantitative and qualitative components and which manifest a synergism.

The study protocol was approved by the Research Ethics Committee of Nicolae Testemițanu State University of Medicine and Pharmacy (minutes no. 64 of 21.05.2018). The clinical study was carried out in accordance with the legislation of the Republic of Moldova for 10 years, and taking into account the principles of international legislation and the Declaration of Helsinki. During the monitoring of the development of the clinical study, no adverse reactions were observed when administering the biologically active supplement used in the treatment. The results of the clinical trial were taken from Trial Register with number FE-T-01.

Table 1.

Clinical characteristics of the subjects

BASIC PARAMETERS	According to the nearest solution method [1]	On the 10th day of treatment monitoring according to the claimed method [2]
Examination	12	12
Information consent	12	12
Low blood pressure 90/60 mm Hg	6 (50 %)	2 (17%)
Tachycardia 90 - 100 beats/min	8 (66%)	1 (8%)
Nausea	12 (100%)	2 (4%)
Vomiting	12 (100%)	0 (0%)
Hypersalivation	9 (75%)	1 (8%)
Headache	7 (58 %)	1 (8%)
Stool disorders	6 (50%)	0 (0%)
High tone of the uterus	3 (25%)	0 (0%)
Low fever (up to 37.3°C)	6 (50%)	0 (0%)
Oliguria	10 (83%)	0 (0%)
Dryness of the skin	11 (94%)	1 (8%)

Table 2.

Data of laboratory examinations

Hematological parameters (Study group)	According to the nearest solution method	On the 10th day of treatment monitoring according to the claimed method	
Hemoglobin, g/l	88,5±0,14	108±0,25	P<0,01
Erythrocytes, $*10^{12}$	2,9±0,025	3,4±0,17	P<0,05
Leukocytes, $*10^{9}$	3,25±0,145	4,3±0,14	P<0,05
Platelets, $*10^{3/}$/mL	170±0,00035	181±0,0004	P<0,05
Eosinophils, $*10^{3/}$/mL	0,65	2,3	P<0,05
Lymphocytes, $*10^{9/}$/mL	1222	1237	P>0,05
Biochemical parameters			
Bilirubin, mM/L	32,3±1,4	21,5±0,9	P<0,05
Urea, mM/L	7,8±0,5	6,8±0,3	P<0,05
Creatinine, mM/L	123 ±2,1	117 ±1,9	P<0,05
General protein, g/L	79,5±1,17	80,7±0,18	P>0,05
ALT, u/L	39,5±0,7	30,7±0,8	P<0,05
AST, u/L	37,3±0,4	31,5±0,7	P<0,05
Glucose, mM/L	5,7±0,6	5,5±0,4	P>0,05
Ionogram			
Mg, mmol/l	0,70±0,06	0,71±0,03	P>0,05
K, mmol/l	3,36±0,14	3,1±0,2	P<0,05
Zn, mmol/l	27,0±0,12	27,7±0,18	P>0,05
Cu, mmol/l	16,1±0,15	16,7±0,19	P>0,05
Ca, mmol/l	8,07±0,2	9,3±0,6	P<0,05
Cl, mmol/l	93,2±0,5	100,2±0,5	P<0,05
Na, mmol/l	129,5±0,5	140,2±0,4	P<0,05

Results.

From the data presented in tab. 1, tab 2 it can be seen that during the treatment in the patients of the study group, compared to the control group, nausea, vomiting, hypersalivation, high tone of the uterus, low fever and low diuresis completely disappear. It also normalizes blood pressure, heart rate, and stool and skin tissue condition much more effectively. Blood tests and partially urine tests (except for the presence of ketone bodies, which after treatment were no longer detected in the study group, but were determined in the control group) returned to normal, with almost the same parameters in both groups.

The effect of the treatment was determined based on the reduction of general symptoms, subjective complaints, positive dynamics of instrumental and laboratory data: high efficacy was observed in 7 subjects (58%), medium – in 4 subjects (33%) and low in 1 subject (8%).

The positive effect of the treatment of gestosis associated with breast cancer according to the developed and implemented method, is manifested by the detoxification action confirmed by the results of blood and urine laboratory tests. At the same time, the results of the treatment demonstrated that in the study group a faster normalization of laboratory data and clinical manifestations of gestosis is evident. No signs of aggravation of the disease were mentioned and the contractile activity of the uterus improved, it turns out that the proposed treatment scheme in association with the biologically active food supplement used for the treatment of early gestoses associated with breast cancer [2] is more effective than in the most effective solution close [1].

Discussions.

In the specialized literature, the problem addressed is not sufficiently elucidated. Methods and methodologies are proposed in pregnant women with gestosis associated with breast cancer are minimal. The proposed method is significant and has conclusive results that can be recommended for this group of patients.

Treatment method of gestosis in pregnant women associated with breast cancer, consists in the fact that for 5-7 days, infusion therapy is administered with the aim of rehydration and detoxification: crystalloids up to 2500-3000 ml per day; Ringer-Locke solution (1000 ml) i/v; lactose (1000 ml) i/v, therapy for restoring metabolic disorders: thiamine 1 ml 5% i/m once a day, ascorbic acid 5 ml of 5% i/v once a day, riboflavin 1 ml 1%, once a day day, antiemetic therapy: direct dopamine antagonists: metoclopramide 2 ml (10 mg) i/m 1 time per day, centrally acting preparations that block serotonin receptors such as ondansetron 2 ml (4 mg) i/m 1 time per day, therapy sedative: droperidol 0.25% -2 ml i/m and additionally a dietary supplement is administered in capsules containing: L-glutathione powder (Glutathione L.) – 300 mg, soy lecithin powder (Lecithinum Glycine max L.) – 1200 mg, dry extract of asparagus (Asparagus officinalis L.) – 120 mg, dry extract of artichoke (Cynara cardunculus, scolymus L.) – 250 mg (medicinal remedy "Y").

The research has a significant medico-social impact, targeting the specific group of pregnant women – patients with CGMaS and gestosis. The results are relevant and significant because they solve a life and health problem, but also a medical one, significantly improving the condition of these patients, which allows operations (caesarean section and mastectomy) to be performed after solving the problem of gestoses. The work opens new directions of research both in obstetrics, perinatology, neonatology, as well as in oncological surgery, postmastectomy rehabilitation, metabolomics and others. The study is limited to one problem, and future polyvalent, multidisciplinary research is called for.

Conclusions.

1. The treatment method of gestoses in pregnant women with breast cancer is effective by reducing and disappearing the symptoms of intoxication – nausea, vomiting, biochemical analyses, but also cardiovascular indicators.

2. The proposed method can also serve as preoperative preparation for patients with breast cancer associated with pregnancy, personalized evaluation in multidisciplinary monitoring – obstetrician, oncologist, surgeon, depending on the state of pregnancy and the oncological status.

Abbreviations.

IV- intravenous;

IM – intramuscularly,

CMaS – breast cancer associated with pregnancy.

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