

Homeopathy in the treatment of liver echinococcosis, complicated by pecilomycosis and chronic obstructive pulmonary disease

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The homoeopathic treatment hepatic echinococcosis complicated paecilomycosis, chronic obstructive lung disease

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SUMMARY

We examined 174 adult patients with liver echinococcosis at the age of 17 to 63 years. In all studies, 19 clinically healthy individuals not suffering from petsilomycosis served as controls, including 9 people aged 17 to 23 years, 10 - from 25 to 30 years. The blood was examined for petsilomycosis. An ultrasound scan was performed, and radiation diagnostics of echinococcosis, pecilomycosis, and COPD was also used. For the first time, a complex of radiation research methods was used for bronchopulmonary petsilomycosis and COPD, an analysis of the diagnostic information content of radiation methods in terms of early diagnosis of respiratory disorders was presented, and an objective system for assessing morphological and functional disorders of the bronchopulmonary system under the influence of these fungi was developed. Highlighted the most informative indicators of radiation studies to determine the nature, the prevalence and severity of changes in the lungs. Juglans regia proved to be the most effective for the treatment of liver echinococcosis, complicated by pecilomycosis and chronic obstructive pulmonary disease.

Key words: echinococcosis, pecilomycosis, homeopathy, chronic obstructive disease lungs (COPD), Juglans regia, radiation diagnostics.

RESUME

174 echinococcosis patients aged 17 to 63 years were examined for paecilomycosis. 75 subjects of different ages who were considered to be clinically healthy were prepared as a control. Of them who had physiological parameters of blood fungi, 19 subjects, including 9 subjects aged 17 to 23 years and 10 subjects aged 25 to 30 years, were eligible. The other examinees were patients with paecilomycosis of varying stages. Dependence of Paecilomyces fungi species content in the blood on iodine deficiency condition has been established in the work. For the first time complex of radial research methods in bronchopulmonary paecilomycosis has been carried out and analysis of diagnostics and CT concerning early diagnostics of respiratory disturbances has been presented. On the basis of contemporary radial visualizations objective estimating system of morphological and functional disturbances of bronchopulmonary system under the influence of Paecilomyces fungi species has been developed. The most informative indexes of radial investigations in order to determine the character of extension and severity of changes in the lungs have been selected. The new antihydatic and antifungal drug Juglans regia has been developed, which has a low toxicity, high fibrous membrane wall permeability, and a damaging action on all germinal elements.

Keywords: paecilomycosis, bronchopulmonary paecilomycosis, roentgenography, computerized tomography (CT), radionuclide pulmonoscintigraphy, Chronic Obstructive Lung Disease, Juglans regia.

Echinococcosis is a widespread disease throughout the world, including in Russia and Central Asia, in the countries of America, Africa, where the high incidence of echinococcosis in humans allows this disease to be considered a regional pathology. Given the great social significance of the disease, which leads to disability and is one of the causes of infant mortality, there is a need for scientific research [8, 9, 17, 18, 20, 24, 33, 35, 37, 45]. The second problem was added to the national economic and medical problem - petsilomycosis [1, 2, 14-16, 19-21, 23, 24, 28]. Pecilomycotic myocarditis in children is becoming a problem for pediatricians [25, 26]. Petsilomycosis itself has become a major scientific problem in which scientists from different sciences are interested (medicine,

veterinary medicine, chemistry, ecology, physics) in many countries of the world [33, 34, 36, 40, 42, 44]. In Russia and Uzbekistan, doctoral and candidate dissertations on pesilomycosis are being defended [1, 2].

The work has been carried out over the past 30 years in the creative community of scientists from Russia and Uzbekistan. The message contains one of the excerpts from these studies.

Many patients with echinococcosis, trying to avoid operations, began to use homeopathic medicines.

Finally, the Russian Ministry of Health officially recognized homeopathy, and homeopath George Vithoulkas [3] was awarded in 1996 the Alternative Nobel Prize in Medicine "For a Better Life of Mankind". We also practiced homeopathy in the "forbidden" years. I would like to highlight this accumulated experience in the study of echinococcosis. According to the literature [3, 6, 11, 13, 14, 15, 28], some homeopathic preparations, apparently, should be attributed to immunomodulators.

The purpose of the message is to provide data on our experience in the homeopathic treatment of echinococcosis liver complicated by pecilomycosis and COPD (chronic obstructive pulmonary disease), which is sometimes a consequence of echinococcosis and pecilomycosis. Report a homeopathic remedy effective for the treatment of echinococcosis, pecilomycosis and COPD.

Materials and methods

We examined 174 adult patients with liver echinococcosis. The patients' age is from 17 to 63 years. The blood of patients was examined for echinococcosis using modern immunological methods: indirect hemagglutination reaction, latexagglutination reaction, lymphocyte binding antigen reactions, scolexoprecipitation reaction described in special works [5, 7, 9, 17, 21, 23, 24, 31, 33, 34, 37, 43]. An ultrasound scan was performed, and radiation diagnostics of echinococcosis, pecilomycosis, and COPD was also used. For the first time, a complex of radiation research methods was used for bronchopulmonary petsilomycosis and COPD, an analysis of the diagnostic information content of radiation methods in terms of early diagnosis of respiratory disorders was presented, and an objective system for assessing morphological and functional disorders of the bronchopulmonary system under the influence of these fungi was developed. Highlighted the most informative indicators of radiation studies to determine the nature, prevalence and severity of changes in the lungs. When diagnosing echinococcosis, the diagnosis was confirmed by surgical intervention with helminthological and bacteriological studies of echinococcal cysts and their contents with the definition of morphological modifications of echinococci. Organ-preserving and sparing surgical interventions were used [8, 20, 22].

A biochemical blood test was performed in patients with the determination of the content of free amino acids according to T.S. Paskhina [4, 19] and using conventional methods, total protein, urea, creatinine, bilirubin, ALT, ASAT, glucose, alkaline phosphatase were determined.

Known immunological methods were used [5, 18, 32, 34, 35, 36, 37, 38, 39, 41]. In particular, the isolation of lymphocytes according to A. Boyum [32] on a ficoll-verographin gradient with a density of 1.077 g / cm³... The number of circulating T-lymphocytes was assessed by the method of spontaneous rosette formation according to G. Jondal et al. [38] with glutarization of formed rosettes. The quantitative determination of blood serum immunoglobulins was carried out by the method of radial immunodiffusion according to G. Mancini [39]. Phagocytic activity of neutrophils was established according to the methods given in the literature [5, 17].

The vital activity of the embryonic elements of echinococci after the operation was determined according to the method of F.P. Kovalenko et al. [12]. In the pre- and postoperative periods, a general urine analysis was carried out, and the content of free amino acids was determined in the daily urine of adults. Patients were examined and monitored before the operation, 12-14 days after the operation and every 4-6 months for a year or more after the operation and the course of treatment. 19 apparently healthy individuals served as controls, their blood and urine were examined as listed above methods, which is accepted as the norm for adults. We have developed methods for the surgical treatment of echinococcosis [5, 30].

Results and discussion

The main method of treating echinococcosis is surgery, chemotherapy is also not excluded. In our opinion, the most important stage of the operation is the elimination of the residual cavity. According to the literature, numerous approaches have been proposed for this, each of which has its own advantages and disadvantages. We used well-known approaches, as well as a new method of eliminating the residual cavity developed in the clinic, awarded with patents [5, 30]

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Children and adults with good results were operated using this method. It consists of 3 stages: 1 - marginal resection of the residual liver cavity up to 3 mm thick; 2 - carrying out screwing sutures; 3 - screwing the resected edges of the liver into the cavity.

The way we have developed the operation is as follows. Under intravenous thiopental sodium anesthesia (10 mg / kg) after treatment of the surgical field twice with iodine and alcohol, a skin incision was made in the right hypochondrium. The abdominal cavity was opened and an echinococcal larvocyst with a fibrous capsule protruding on the liver surface was exposed. The trocar drainage was used to puncture and aspirate the contents of the larvocyst. The connective tissue membrane of the parasite, not covered with a whitish hepatic tissue, was dissected in the longitudinal direction along the entire diameter. The residual echinococcal fluid was removed, and the cavity was disinfected with 80% glycerin. Subsequently, the protruding whitish part of the fibrous capsule was excised together with the liver parenchyma up to 3 mm thick.

From the resected edges of the hepatic tissue, the bleeding vessels were sutured with separate thin interrupted catgut sutures. The cavity of the fibrous capsule of the larvocyst was eliminated by screwing the resected edges of the echinococcal cavity inside with interrupted catgut screwing sutures. In some cases, the cyst bed for aspiration of the contents was drained with a PVC tube with two lateral holes, which was led out through a separate incision. The subhepatic area was drained with a cigar swab also through a separate incision. The wound was sutured in layers, tightly.

Marginal liver resection was performed to stimulate regenerative processes in the resected area. In addition, the screwed-in resected edges and free areas of the liver parenchyma are not sutured to the bottom of the cavity, since such fixation can cause inhibition of the liver regeneration process, and does not exclude damage to the bile ducts and blood vessels. This method was developed on the laboratory model of experimental echinococcosis of lambs and pigs created by us, which is published and protected by a patent [5]. In contrast to previously published works, in this communication we present materials on liver echinococcosis complicated by *pecilomycosis* and COPD. We operated on 174 adult patients with liver echinococcosis. The patients' age is from 17 to 63 years. The patients we observed were divided into 8 groups (Tables 1, 2, 3),

We studied in a comparative aspect in detail two methods of surgical intervention for liver damage by echinococcosis (invagination of the fibrous capsule and the method developed by us).

In the first group (17 patients), after the removal of echinococcal cysts, the fibrous capsule was invaginated by the conventional method, the patients in the second group (18) were operated on according to the method developed by us. Patients of the 1st and 2nd groups in the pre- and postoperative periods received conventional drug therapy.

The third group (19 patients) underwent invagination of the fibrous capsule of echinococci, and together with conventional drug therapy, taktivin was used intramuscularly, 1-2 ml per day for 10 days in the pre- and postoperative periods, and then the course of treatment was repeated 8-10 months after the operation ... Later he used polyoxidonium as an immunomodulator.

The fourth group (23 patients) differs from the third in that the method of surgical interventions developed by us was applied. Patients of the 5th and 6th groups operated on by various methods (Table 1) used traditional medicine (preparations from green walnut fruits) in the course of treatment. Patients of the 7th and 8th groups (except for surgical interventions) used homeopathic medicines : *Iris versicolor*, *Chelidonium majus*, *Carbo veg.*, *Phosphorus*, *Nux vomica*, *Sulfur* and others in the pre- and postoperative periods and every 3 months after the operation. Approximately one third of patients in groups 7 and 8 did not stop using homeopathic medicines, apparently, they became addicted to them.

In the patients examined by us before the operation, there was a statistically significant ($P < 0.05$) decrease in the number of T-lymphocytes in the blood due to T-helpers, an increase in the number of immunoglobulins, as well as circulating immune complexes (Tables 1, 2). Phagocytic activity of neutrophils was clearly suppressed (Table 3).

On the 10-12th day after the operation and before discharge, the examined patients did not show a significant normalization of the impaired immune status. With echinococcosis, allergic reactions are intense and do not fade away within 5 years after the operation and the onset of clinical recovery. Only a year after the operation and the drug therapy it was possible to

to note the shifts in the studied parameters of immunity in comparison with the preoperative period (Tables 1, 2, 3).

Analysis in comparison of the digital material of groups 1 and 2 shows the difference between the generally accepted and developed by us surgical method for the treatment of echinococcosis. A year after the operation, without the use of immunomodulators, the number of T-lymphocytes, which was underestimated before the operation, slightly increased, although in both groups it continued to remain below normal. But in the group of patients operated on by the developed method, the number of T-lymphocytes is higher than in patients operated on by the conventional method. The difference between the compared groups is statistically significant ($P < 0.05$). The number of T-helpers in the blood of patients operated on by the conventional method - $32.4 \pm 2.1\%$, by the proposed method - $36.3 \pm 1.6\%$. The difference between the compared values is statistically significant ($P < 0.05$).

In addition, in the compared groups (Table 2), the amount of immunoglobulins and CEC statistically significantly deviated towards the control group when comparing these indicators of the 1st and 2nd groups with an advantage in the group of patients operated on by the developed method. This is also characteristic of the phagocytic activity of neutrophils (Table 3). Consequently, the proposed new method of surgery - less traumatic and more physiological - provided good regeneration, filling the residual cavity without complications and better normalization of the immune status, although it did not reach normal limits (Tables 1, 2, 3). This is direct evidence that the immunorehabilitation of patients with echinococcosis primarily depends on the method of surgery. In this regard, the proposed new method has shown its superiority in comparison with the generally accepted one.

Immunorehabilitation of patients with echinococcosis reaches its goal after the use of taktivin, polyoxidonium, homeopathic preparations in combination with a new method of surgical interventions, which, a year after the operation, ensure that the studied parameters of the immunity of patients approach those of the control group, taken as the norm. The best result in restoring the immune status was established in the group in which homeopathic preparations were used (Tables 1, 2, 3).

Table 1

Parameters of cellular immunity in patients with echinococcosis, depending on the methods of surgery and applied drugs

Группа	Метод операции и препараты	n	Время	T-лимфоцитов %	B-лимфоцитов %	T-хелперов %	T-супрессоров %
1	Инвагинация фиброз. капсулы	17	до операции	$36,5 \pm 0,8^x$	$21,6 \pm 1,2$	$29,8 \pm 1,7^x$	$6,3 \pm 0,4$
			после операции	$37,6 \pm 1,5^x$	$22,3 \pm 1,7$	$32,4 \pm 2,1^x$	$6,1 \pm 0,7$
2	Разработанный метод	18	до операции	$37,1 \pm 0,9$	$19,8 \pm 2,4$	$28,7 \pm 1,7^x$	$6,5 \pm 0,4$
			после операции	$41,2 \pm 3,7$	$22,1 \pm 2,5$	$36,3 \pm 1,6^x$	$6,6 \pm 0,5$
3	Инвагин. фиброкапсулы + тaktivин	19	до операции	$35,4 \pm 1,6^x$	$23,1 \pm 1,9$	$31,4 \pm 1,5^x$	$6,2 \pm 0,2$
			после операции	$43,7 \pm 6,8^x$	$21,4 \pm 2,3$	$36,2 \pm 1,7^x$	$6,4 \pm 0,3$
4	Разработанный метод + тaktivин	23	до операции	$36,2 \pm 2,1^x$	$20,9 \pm 2,4$	$30,7 \pm 1,4^x$	$6,9 \pm 0,5$
			после операции	$48,4 \pm 3,7^x$	$22,3 \pm 1,9$	$36,4 \pm 1,1^x$	$6,8 \pm 0,4$
5	Инвагин. фибр. капсулы + средство народн. медицины	25	до операции	$39,1 \pm 1,9^x$	$21,8 \pm 2,2$	$27,6 \pm 3,1^x$	$6,5 \pm 0,5$
			после операции	$42,2 \pm 4,2^x$	$20,6 \pm 2,8$	$35,1 \pm 1,9^x$	$6,4 \pm 0,3$
6	Разработанный метод + средство народн. медицины	27	до операции	$36,9 \pm 1,6^x$	$21,4 \pm 1,9$	$31,4 \pm 1,5^x$	$6,2 \pm 0,4$
			после операции	$54,2 \pm 4,7$	$21,6 \pm 2,7$	$40,9 \pm 1,4$	$6,3 \pm 0,4$
7	Инвагин. фибр. кап. + гомеоп. препарат	23	до операции	$37,4 \pm 1,9^x$	$20,3 \pm 1,8$	$31,6 \pm 1,7^x$	$6,6 \pm 0,2$
			после операции	$41,7 \pm 2,6^x$	$19,7 \pm 1,6$	$35,4 \pm 1,3^x$	$6,7 \pm 0,3$
8	Разработан. метод + гомеоп. препарат	22	до операции	$35,9 \pm 2,7^x$	$22,4 \pm 1,9$	$29,7 \pm 1,7^x$	$6,0 \pm 0,2$
			после операции	$51,4 \pm 3,9$	$22,7 \pm 2,5$	$41,9 \pm 1,6$	$6,1 \pm 0,4$
9	Контрольная	19		$52,5 \pm 3,4$	$22,4 \pm 2,3$	$41,5 \pm 1,2$	$6,7 \pm 0,3$

Примечание: x – разница статистически достоверна ($P < 0,05$), результаты исследования после операции через год

table 2

Indicators of humoral immunity in patients with echinococcosis, depending on the methods operations and drugs used

Группа	Метод операции и препараты	n	Время	Иммуноглобулины, мг %			Цик ед. оптич. Плотности
				A	M	G	
1	Инвагинация фиброз. капсулы	17	до операции	279,5 ± 27,4 ^x	242,3 ± 16,4 ^x	1759,3 ± 43,4 ^x	0,097 ± 0,008 ^x
			после операции	282,4 ± 31,6 ^x	235,6 ± 17,9 ^x	1834,7 ± 57,6 ^x	0,098 ± 0,009 ^x
2	Разработанный метод	18	до операции	287,5 ± 30,4 ^x	246,7 ± 12,4 ^x	1827,3 ± 49,1 ^x	0,091 ± 0,006 ^x
			после операции	248,3 ± 32,3 ^x	221,7 ± 14,2 ^x	1756,8 ± 5,4 ^x	0,072 ± 0,004 ^x
3	Инвагин. фиброкапсулы + тактивин	19	до операции	278,4 ± 29,2 ^x	247,5 ± 12,1 ^x	1803,4 ± 39,7 ^x	0,092 ± 0,011 ^x
			после операции	269,5 ± 31,4 ^x	235,4 ± 15,7 ^x	1756,3 ± 47,2 ^x	0,082 ± 0,009 ^x
4	Разработанный методов + тактивин	23	до операции	283,7 ± 0,5 ^x	247,6 ± 12,4 ^x	1515,6 ± 49,3 ^x	0,096 ± 0,007 ^x
			после операции	212,7 ± 38,6	198,4 ± 15,7	1569,4 ± 49,7	0,039 ± 0,004
5	Инвагин.фибр.капсулы + средство народн. медицины	25	до операции	277,6 ± 31,2 ^x	237,4 ± 10,3 ^x	1857,6 ± 39,7 ^x	0,091 ± 0,006 ^x
			после операции	254,3 ± 23,7 ^x	238,5 ± 11,7 ^x	1774,8 ± 38,6 ^x	0,073 ± 0,007 ^x
6	Разработанный метод + средство народн. медицины	27	до операции	283,4 ± 25,4 ^x	243,6 ± 15,2 ^x	1768,4 ± 41,7 ^x	0,095 ± 0,008 ^x
			после операции	229,7 ± 29,5	196,3 ± 15,1	1497,5 ± 48,6	0,093 ± 0,007
7	Инвагин.фибр.кап. + гомеоп. препарат	23	до операции	293,5 ± 32,4 ^x	257,3 ± 9,8 ^x	1827,4 ± 56,3 ^x	0,089 ± 0,012 ^x
			после операции	277,3 ± 29,6 ^x	241,9 ± 16,2 ^x	1729,8 ± 46,9 ^x	0,081 ± 0,008 ^x
8	Разработан. метод + гомеоп. препарат	22	до операции	283,7 ± 37,6 ^x	267,4 ± 8,7 ^x	1793,5 ± 49,3 ^x	0,082 ± 0,007 ^x
			после операции	223,6 ± 27,4	197,3 ± 9,7	1493,5 ± 46,3	0,032 ± 0,007
9	Контрольная	19		215,7 ± 29,8	192,4 ± 11,6	1527,3 ± 51,2	0,035 ± 0,005

Примечание: x – разница статистически достоверна ($P < 0,05$), результаты исследования после операции через год

A serious complication of liver echinococcosis is pecilomycosis and COPD. The diagnosis of pecilomycosis was made on the basis of the detection of spherules of the fungus in the blood of patients before surgery and its confirmation after surgery. Morphological modifications were established by the methods given in the works of A.M. Shamsiev [30, 31]. In all cases, the diagnosis was confirmed by the immunological method of the antigen-binding lymphocyte reaction (ASL), developed by A.M. Shamsiev [31], high-resolution multispiral computed tomography was selectively used. 236 patients aged 17 to 70 years were examined for pesilomycosis. 75 persons of different ages who were considered clinically healthy were trained as controls. Of these, with physiological parameters in the blood of fungi, 19 people could be used, 9 at the age of 17 to 23 years old and 10 - from 15 to 30 years old. The rest of the examined patients turned out to be patients with pecilomycosis in different stages. The first study for pesilomycosis was carried out by us in the Samarkand city hospital, where an examination of patients' blood for pesilomycosis was organized. A total of 61 patients with echinococcosis confirmed by surgery were examined for pesilomycosis; clinically healthy donors were used as a control.

Table 3

Phagocytic activity of neutrophils in patients with echinococcosis, depending on the methods operations and drugs used

Группа	Метод операции и препараты	n	Время	Фагоцитоз, %
1	Инвагинация фиброзной капсулы	17	до операции	41,15 ± 4,73 ^x
			после операции	43,19 ± 4,28 ^x
2	Разработанный метод	18	до операции	42,24 ± 5,17 ^x
			после операции	48,12 ± 3,84 ^x
3	Инвагинация фиброкапсулы+тактивин	19	до операции	39,24 ± 4,12 ^x
			после операции	49,15 ± 6,14 ^x
4	Разработанный метод + тактивин	23	до операции	38,16 ± 4,18 ^x
			после операции	59,27 ± 4,27 ^x
5	Инвагинация фиброзной капсулы + средство народной медицины	25	до операции	40,32 ± 4,27 ^x
			после операции	48,97 ± 4,63 ^x
6	Разработанный метод + средство народной медицины	27	до операции	37,64 ± 3,87 ^x
			после операции	69,27 ± 6,12 ^x
7	Инвагинация фиброзной капсулы + гомеопатические препараты	23	до операции	38,16 ± 4,81 ^x
			после операции	47,26 ± 5,61 ^x
8	Разработанный метод + гомеопатические препараты	22	до операции	38,15 ± 4,82 ^x
			после операции	65,27 ± 7,15 ^x
9	Контрольная	19		61,23 ± 5,15 ^x

Примечание: x – разница статистически достоверна ($P < 0,05$), результаты исследования после операции через год

Patients with a single echinococcus were identified by chance during mass examinations (early diagnosis). The number of spherules of *pecilomyces* was 6.97 ± 2.10 thousand in 1 μ l of blood, the difference with the control was statistically insignificant.

There were 12 patients with multiple echinococci of the liver (early diagnosis), and the number of spherules of *pecilomyces* was statistically significantly different from the control group. Parasitological examination of the material after the operation showed that the patients operated on at an early stage of the disease were carriers of the modifications of *Echinococcus veterinorum* and *E. acephalocysticus*.

With a single suppurative echinococcosis of the liver in patients operated on in the city hospital of Samarkand, the number of *pecilomyces* spherules increased more than 3 times compared with healthy ones. This indicator turned out to be even higher in case of liver echinococcosis complicated by a cystobiliary fistula, when the number of spherules of *pecilomyces* was 21.64 ± 3.31 thousand in 1 μ l of blood, which is almost 5 times higher than the norm (the indicators of the control group were taken as the norm) ...

From the echinococci that parasitized in humans, we for the first time isolated the fungi of the genus *Paecilomyces* and established their species, introduced the concept of echinococcosis, complicated by *pecilomycosis*.

The quantitative indicator of the spherules of the *pecilomyces* fungus depends on the intensity of the echinococcal invasion, the complication of the underlying disease, as well as on the morphological modification of the echinococci. The greatest number of spherules of the *pecilomyces* fungus in the blood of patients appears when the *E. hominis* modification is parasitized. Also, a high number of spherules of the *pecilomyces* fungus was detected in the blood of patients with giant echinococci.

Based on the results of our research, we propose to distinguish four stages of *pecilomycosis*. The first stage - the number of fungi from 6.5 to 8 thousand in 1 μ l of blood, the second - from 8.5 to 10.0 thousand, the third - from 10.5 to 14.5 thousand in 1 μ l of blood, the fourth - over 15.0 thousand spherules in 1 μ l of blood.

In case of complications of echinococcosis with *pecilomycosis* of the third and fourth stages, which are very easy to detect, we suggest using the drugs we tested before and after the operation: nizoral, fluconazole, diflucan, orungal, mycosist, teknaol, homeopathic medicines. It is enough to use one fungicide. When studied, these fungicides showed no toxicity, side effect, but proved to be highly effective. The best result was obtained with the use of homeopathic medicines in the pathogenetic therapy of liver echinococcosis complicated by *pecilomycosis* and COPD.

We have studied the health status of 76 adult patients with liver echinococcosis complicated by *pecilomycosis* and COPD. Served as control 15 clinically healthy individuals. In patients with liver echinococcosis, complicated by *pecilomycosis* and COPD, the serum levels of leucine, phenylalanine, tryptophan, methionine, valine, tyrosine, proline decreased significantly ($P < 0.01$).

lysine, cystine, but the amount of alanine, threonine, aspartic acid, histidine, asparagine increased significantly ($P < 0.01$). In patients of this group, increased urinary excretion of leucine, phenylalanine, tryptophan, methionine, valine, tyrosine, lysine, cystine ($P < 0.01$) decreased urinary excretion of alanine, threonine, glutamic acid, aspartic acid, asparagine ($P < 0.01$). Secondary immunodeficiency in the examined patients was characterized by a statistically significant decrease in the blood of DM 3+, DM 4+, DM 8+, DM 16+, DM 21+, phagocytosis and a decrease in its quantitative parameters, an increase in the amount of immunoglobulins and circulating immune complexes. In the biochemical parameters of blood, there were also significant deviations from the group of clinically healthy individuals.

Previously, in an experiment on white mice and rats infected with *Pecilomyces* from a patient suffering from hepatic echinococcosis complicated by *Pecilomyces* and COPD, we tested the effect of the homeopathic preparation *Juglans regia* C6, obtained from walnut plant materials, using regulated methods [27]. The biological activity of raw walnut is confirmed by a patent [16]. In experiments, we have proven the anti-cyclomycosis and anti-helminthic effect of this homeopathic preparation.

Of the 76 adult patients with liver echinococcosis complicated by *Pecilomyces* and COPD, 14 patients did not take fungicides (fungicide intolerance) and any new drug scares them. 15 patients were treated with Diflucan, which was used for a month, the dosage was according to the instructions. In this group, a moderate therapeutic effect was obtained - a 50% decrease in *Pecilomyces* in the blood of patients. The remaining 47 patients were treated with the homeopathic drug *Juglans regia* C6, bought in pharmacies in Moscow, dynamization was carried out according to S.A. Nikitin [18].

During the entire treatment, the patients were on a diet developed by us. A full-fledged protein diet was introduced: beef alternated with fish and chicken, daily greens, tomatoes, freshly sour cabbage, from fruits: sweet and sour apples, pears, plums, currants, raspberries (no more than 300g per day), rye bread, such as Borodinsky. Drinking coffee, tea is excluded. Every day the patients received 0.5 liters of Mechnikov's curdled milk. As a result of the treatment, the patients had normalized amino acid metabolism, and the immune status showed a tendency towards normalization. In all patients treated with the homeopathic preparation *Juglans regia* C6, the content of spherules of *Pecilomyces* mushrooms normalized and their content in the blood of clinically healthy individuals did not differ.

Out of 76 adult patients with liver echinococcosis complicated by *Pecilomyces* and COPD, 29 patients with echinococcosis were treated with the reference drug albendazole. According to the WHO method, the effectiveness was determined: in 11 patients (37.99%) - a good result, in 12 - satisfactory (41.34%), in 6 - unsatisfactory (20.67%).

47 adult patients with liver echinococcosis complicated by *Pecilomyces* and COPD were treated with the homeopathic medicine *Juglans regia* C6. Efficiency: in 26 patients - a good result (55.32%), in 14 - satisfactory (29.79%), in 7 - unsatisfactory (14.09%).

For exacerbation of COPD, we used the recommendations of the authors [18, 29], but dozens of homeopathic remedies were additionally used in addition to the main homeopathic remedy according to clinical indications; Frenkel [28], but it is obligatory in all cases with the inclusion of the preparation *Juglans regia* C6. Let's give an example. M.V. Chubarov, A.V. Timofeeva [29] with COPD, accompanied by catarrhal inflammation of the chest with chest pain, a feeling of severe weakness in the chest, stabbing pain, spastic cough with viscous mucous discharge, chronic dry cough associated with dry mucous membranes of the upper respiratory tract, suggest aluminum. In such a case, we used aluminum as a base preparation, and at the same time belladonna, arnica, phytolacca, and *Juglans regia*. The marked drugs are compatible. In cases where COPD patients developed colds accompanied by high fever, we used up to 15 or more homeopathic remedies at the same time. We have made sure that COPD patients can be protected from colds by using homeopathy [3, 6, 11, 13-15, 18, 28]. We have used the following homeopathic remedies: *Artemisia abrotanum*, *Adonis vernalis*, *Aconitum napellus*, *Allium sativum*, *Aluminum oxydatum*, *Ambra grisea*, *Ammonium aceticum*, *Ammonium carbonicum*, *Antimonium tartaricum*, *Apocynum androsaemifolium*, *Apocynum androsaemifolium cannabidis*, *Apocynum androsaemifol.*, *Arum maculatum*, *Arum trifillium*, *Arundo mauritania*, *Acidum benzoicum*, *Acidum nitricum*, *Atropa belladonna*, *Berberis vulgaris*, *Borax veneta*, *Bryonia alba*, *Veratrum viride*, *Vinca minor*,

Lachesis, Ledum pallustre, Lycopodium, Lobelia inflata, Millefolium, Juglans regia, Aralia racemosa, Petroleum, Pulsatilla Nigricans, Rhus toxicodendron, Ruta graveolens, Salvia officinalis, Sambucus nigra, Silicea, Spongia tosta, Sulphurdec, Clematis erecta, Aesculus hippocastanum, Viscum album.

The right combination of compatible drugs listed has ensured that COPD patients have a cold-free life. You must be very careful about drug combinations, for example, Atropa belladonna and Hyosciamus niger, Arum maculatum and Arnica Montana are incompatible. This incompatibility is reported in the literature [3, 6, 11, 13–15, 18, 28].

After the recovery of patients from peticulomycosis and relief of exacerbation of COPD, patients with satisfactory and unsatisfactory indications of chemotherapy and homeopathy were successfully operated with new methods developed by A.M. Shamsiev and V.K. Gostishchev [5, 30], who were awarded patents for inventions of the Russian Federation and the Republic of Uzbekistan.

Chemotherapy of echinococcosis in children is not well understood. In recent years, in the literature available to us, we have identified only three foreign sources on the conservative treatment of liver echinococcosis in children with albendazole and flubendazole. The use of a homeopathic preparation for the treatment of echinococcosis of the liver of children, complicated by peticulomycosis, is presented by us for the first time. With the help of the scolexoprecipitation reaction (ESR), antigen-binding of lymphocytes (ASL), ultrasound, modern radiation diagnostics and blood tests of patients for the content of spherules of peticulomyces

revealed 75 children aged from 7 to 15 years old patients with echinococcosis of the complicated liver, peticulomycosis. On the basis of comprehensive studies in children, a syndrome was anemic established, a violation of protein-amino acid metabolism, immune status and functional state of the cardiovascular system. 28 children with liver echinococcosis complicated by peticulomycosis were treated with the reference drug albendazole for 30 days at a dose of 10 mg / kg. 47 children with liver echinococcosis complicated by peticulomycosis were treated with homeopathic medicine Juglans regia C6 for 30 days. Four grains of the preparation Juglans regia C6 were dissolved in 100 ml of boiled water cooled to room temperature in a plastic bottle, which was closed with a polyethylene lid; dynamization was carried out according to S.A. Nikitin [18], rotating 50 times to the right, 50 times to the left. The drug was prepared every day and used on the same day. After 10 shakes for 20-30 minutes. one big sip was taken before breakfast. A second sip was also taken about 2 hours after breakfast; the third sip - in 20-30 minutes. before lunch, the fourth - 2 hours after lunch, the fifth - 20-30 minutes. before dinner, the sixth - 20-30 minutes. before bedtime. The entire course of treatment with the homeopathic remedy lasted for 30 days. There were no side effects of the drug. In contrast, in children treated with albendazole, nausea and vomiting were noted in some cases.

According to the WHO methodology, the results of the treatment of echinococcosis with drugs were assessed. When treating with albendazole, a good result was obtained in 6 (21.4%) sick children, a satisfactory result - in 8 (28.6%), unsatisfactory - in 14 (50%) children. In 28 children treated with albendazole, the number of fungal spherules exceeded the norm by three times. Anemic the syndrome is preserved, the disturbed protein amino acid metabolism and immune status did not change.

Out of 47 children with liver echinococcosis complicated by peticulomycosis treated with the homeopathic preparation Juglans regia C6, 14 (29.7%) had a good result in the treatment of echinococcosis, satisfactory - in 25 (53.1%), unsatisfactory - in 8 (17.2%) children. All children treated with the homeopathic medicine Juglans regia C6, the number of spherules peticulomyces below 6 thousand in 1 µl of blood, and the hemoglobin content in blood is no different from his blood levels of clinically healthy children. There was a normalization of protein-amino acid metabolism and a tendency to normalize the immune status. All patients were successfully operated on; with a good result, the larvocysts were killed. We recommend using the homeopathic medicine Juglans regia for the treatment of liver echinococcosis complicated by peticulomycosis in children.

conclusions

1. Echinococcosis of the liver, complicated by peticulomycosis and COPD, in adults is accompanied by persistent secondary immunodeficiency, as patients seek help late. The effectiveness of immunocorrection in echinococcosis depends on the method of surgery. With the use of effective immunomodulators and homeopathic preparations, immunorehabilitation of adult patients with echinococcosis is possible one year after the operation.

2. In adult patients with echinococcosis of the liver, complicated by peticulomycosis and COPD, there was

violation of amino acid metabolism. In blood serum, statistically significant (P < 0.01) the amount of leucine, phenylalanine, tryptophan, methionine, valine, tyrosine, proline, lysine, cystine decreased, but the amount of alanine, threonine, aspartic acid, histidine, and asparagine increased. In patients of this group, increased urinary excretion of the amount of leucine, phenylalanine, tryptophan, methionine, valine, tyrosine, lysine, cystine (P < 0.01), decreased urinary excretion of the amount of alanine, threonine, glutamic acid, aspartic acid, asparagine (P < 0.01).

3. In adult patients with echinococcosis of the liver, complicated by pecilomycosis and COPD, there was violation of the immune status. Secondary immunodeficiency in the examined patients was characterized by a statistically significant decrease in the blood of DM 3+, DM 4+, DM 8+, DM 16+, DM 21+, phagocytosis and a decrease in its quantitative indicators, an increase in the amount of immunoglobulins and circulating immune complexes. In the biochemical parameters of blood, there were also significant deviations from the group of clinically healthy individuals.

4. Of 76 adult patients with hepatic echinococcosis complicated by pecilomycosis and COPD, 29 patients against echinococcosis were treated with the reference drug albendazole. According to the WHO method, the effectiveness was determined: in 11 patients (37.99%) - a good result, in 12 (41.34%) - satisfactory, in 6 (20.67%) - unsatisfactory. 47 adult patients with liver echinococcosis complicated by pecilomycosis and COPD were treated with the homeopathic medicine *Juglans regia* C6. Efficiency: in 26 patients (55.32%) - a good result, in 14 (29.79%) - satisfactory, in 7 (14.09%) - unsatisfactory.

5. With exacerbation of COPD, we used the recommendations of homeopaths, but the monopreparation did not applied. Necessarily, dozens of homeopathic remedies were additionally used to the basic homeopathic remedy according to clinical indications, they were treated according to the principle of circles given in the literature, but always in all cases with the inclusion of *Juglans regia* C6.

6. When treating echinococcosis with albendazole in children, a good result was obtained in 6 (21.4%) patients, a satisfactory result - in 8 (28.6%), unsatisfactory - in 14 (50%) children. When treating with the homeopathic medicine *Juglans regia* C6, in relation to the treatment of echinococcosis, a good result was obtained in 14 (29.7%), satisfactory - in 25 (53.1%), unsatisfactory - in 8 (17.2%) children. In all children treated with the homeopathic medicine *Juglans regia* C6, the number of pecilomycose spherules is less than 6 thousand in 1 µl of blood, and the hemoglobin content in the blood does not differ from the blood content of clinically healthy children.

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