

Complex treatment of opisthorchiasis invasion

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One of the causes of impaired functioning of the liver and biliary tract is hepatic trematodes. At the moment in the world there are about 21 million people infected with these types of parasites. The topic of trematodes is one of the most relevant in connection with the possible carcinogenic effect of this helminthic invasion, because revealed a high incidence of primary liver cancer in the foci of opisthorchiasis compared with areas free from it.

The trematode family consists of no less than 30 subspecies, of which the most studied are *Clonorchis sinensis*, *Opistorhis viverrini*, and *Opistorhis felinus*. This helminthic invasion causes necrosis, inflammation, fibrosis, strictures, cholangiectasia from the biliary tract. The mechanisms of the pathological effects of hepatic trematodes include direct irritating chemical exposure by the parasites themselves, their eggs and other waste products, mechanical obstruction of the biliary ducts, creating conditions for the introduction of bacteria into the bile ducts from the duodenum. The most probable fact is the development of duct dilatation with this parasitic invasion, and the development of stenosis processes, possibly, is a consequence of the addition of bacterial inflammation.

dysregulation of cell proliferation.

An important pathogenetic factor of carcinogenesis (in the presence of *Opistorhis viverrini*) is the chronic local generation of nitric oxide, which is confirmed by an increase in its level in the blood and urine. Cells involved in inflammation, in particular macrophages, express nitric oxide synthetase. Released nitric oxide in the presence of amino acids and with the participation of nitric oxide synthetase forms nitroso components that cause DNA mutations, that is, DNA damage occurs by endogenously formed nitrosamines. In addition, there is an additional expression of CChR 2A2 and an increase in the activity of some enzymes due to the inflammatory process in the gastrointestinal tract, which together leads to malignancy of the ductal epithelium.

Opisthorchiasis - zoonotic oral biohelminthiasis, natural focal invasion. The susceptibility to invasion is general. Distributed in Thailand, Laos, India and China (Taiwan), Japan, we mainly in Western Siberia. Defeat ranges from 70% to 100% of the population according to various sources. Human infection occurs when eating raw, lightly salted or slightly cured fish with live metacircariae, which is the final factor in the transmission of the invasion. The clinic distinguishes between the acute stage of the disease (usually in people who have come to the focus of invasion) and the primary chronic course (in local residents). The acute stage is characterized by: acute onset, prolonged high fever, mild jaundice is possible, pain in the right hypochondrium, a change in the blood count. Clinical picture

chronic opisthorchiasis and clonorchiasis is manifested mainly by a symptom complex characteristic of chronic cholecystitis, duodenitis and pancreatitis. Often, the phenomena of exo- and endotoxiosis are found due to exposure to metabolic products of parasites, as well as an inflammatory reaction due to the addition of a bacterial infection.

It is not difficult for a doctor working on the equipment of the company "IMEDIS" to recognize the presence of opisthorchiasis or clonorchiasis invasion in the examined patient, thanks to the presence of private programs. It is advisable to look at which organ the parasite is associated with (liver, bile ducts), what processes it causes (hepatitis, cholecystitis, cholangitis), whether these diseases are additionally associated with microorganisms, protozoa, viruses, fungal infection. It is necessary to know the reaction of the immune system to the presence of helminthic invasion in the patient (tension or exhaustion is caused by this parasite), in order to carry out further immune correction during treatment. The data on the adaptation reserves of the organism will be taken into account when prescribing specific drug therapy (calculating the dose of the drug, the intake of which should not reduce the reserve capacity of the organism).

The treatment of opisthorchiasis invasion should be approached pathogenetically. Antihelminthic therapy should consist of several stages:

- 1) preparatory therapy;
- 2) antiparasitic therapy with specific drugs;
- 3) rehabilitation therapy.

The preparatory stage of therapy according to this technique is the main one, due to the fact that quite often the treatment measures carried out at this stage are sufficient for a cure.

As a course of preparatory therapy, patients were prescribed:

1) Herbal medicine (the main component is aspen bark), used biological active additives ecorcol, cholegon, which include aspen bark. Doses and duration of herbal and supplement intake were determined by testing.

2) Electromagnetic therapy for the elimination of parasites was carried out in for 10-14 days, daily, with an intensity of 100 services. units, lasting from 20 to 40 minutes. for each frequency. For 3, 5, 8, 10, 14 sessions, a general BRT was additionally connected, according to the "golden section", with frontal electrodes, lasting up to 30 minutes.

3) Choloretic, hepatoprotective drugs (Essentiale forte - N, Essliver Forte, Gastropect, Heptral, Liv-52, Corsil) and herbs (St. John's wort, corn silk, immortelle, etc.). Herbs and medicines were selected by testing individually for each patient.

4) If necessary, immunocorrective therapy was carried out in mainly immunomodulators (polyoxidonium, ridostin, immunofan, erbisol).

Usually 2-3 courses were prescribed, with breaks from 2 to 6 weeks. After for each course of treatment, if possible, blood, bile, and feces laboratory were examined.

If necessary, we switched to the second stage of treatment - antiparasitic therapy with dosage forms - biltricide (praziquantel) at a dose of 30 to 75 mg per kg of patient weight. The dose of the drug was selected individually by testing. Duration of taking the drug: in

within 1 day, usually in 2 doses, 2/3 of the dose in crushed form (powder) was given in the morning after breakfast, immediately after a meal, 1/3 of the dose was given no more than 4-5 hours after lunch, also in crushed form ... The medicine was washed down with plain water (1/2 glass). On this day, the patients had nothing more to eat, they were allowed to drink in moderation. The next morning (at 6.00) it was recommended to do 2 enemas in a row, with plain water (up to 2 liters).

The third stage of treatment - rehabilitation therapy, usually takes a fairly long period of time. This stage is extremely important because is aimed at the "evacuation" of parasites from the gallbladder, restoration of the sphincter of Oddi and the gallbladder, which leads to the normalization of the processes of bile formation and bile secretion. An important aspect is the fight against exo- and endotoxiosis resulting from the mass death of parasites.

Patients were prescribed choleric drugs, herbs, tubazh with mineral water, desensitizing therapy, hepatoprotectors, immunomodulators. Resonance-frequency therapy was necessarily carried out for 14 days with a gradual decrease in the intensity and duration of therapy, in parallel with BRT along the selected meridians for 3, 7, 10, 14 sessions from 15 to 30 minutes. In the future, it was recommended to take choleric herbs (the composition of which was selected individually) lasting up to 3-6 months, homeopathic remedies were given: opisthorchiasis nosodes with gradually increasing potency, anihomotoxic therapy was carried out.

42 patients were treated using this technique. Control tests for the presence of the parasite were carried out before the course of treatment, during the preparatory period of therapy and after the 2nd stage of treatment, against the background of rehabilitation therapy 3-4 weeks after taking biltricide, when the frequency of parasites was no longer tested. The condition of the patients on the background of the therapy was satisfactory, the patients remained able to work at all stages of treatment.

Thus, holding _____ described an integrated therapy opisthorchiasis invasion is a gentle and appropriate method of treatment, which can be recommended for use in outpatient medical practice.