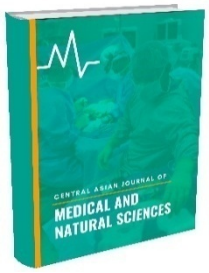
CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES



Volume: 02 Issue: 03 | May-June 2021 ISSN:2660-4159

www.cajmns.centralasianstudies.org/index.php

CLINICAL SIGNIFICANCE OF THE STUDY OF THE MICROFLORA OF ECHINOCOCCAL CONTENTS AND DETERMINATION OF ITS SENSITIVITY TO ANTIBIOTICS

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Received 12th Apr 2021,
Accepted 14th May 2021,
Online 6th June 2021

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ABSTRACT: *Echinococcosis, a severe parasitic disease, remains a medical and social problem in many countries around the world. It can take years to develop and can be detected accidentally (e.g. during an X-ray examination). The period from the time of infection to the first clinical signs can range from several months to tens of years.*

Keywords: echinococcosis, microbiology, bacteria to antibiotics

I. Introduction

For the first time, echinococcosis and its causative agent were studied from the standpoint of not only surgery, but also microbiology. The pathogen of echinococcosis itself turned out to be an organism with a complex parasitocenosis, including relationships with pathogenic microbes, protozoa and viruses.We have studied the microflora of the contents of the operated patients, which suggests clinical interest, having determined the sensitivity of microorganisms in the contents of echinococci from patients to modern antibiotics, provide practical recommendations for the correct selection of antibiotics in the pre and postoperative treatment of patients with echinococcosis.

The purpose of the work. To find out the possibility of dependence of the presence or absence of microflora in echinococcal bladders on morphological modification, to determine the morphological modification in all cases.

Materials and methods of research. On the basis of the Samarkand State Medical University clinic, together with other departments of the institute, laboratory studies were conducted for the modification of echinococci and the determination of the microflora of bladders, as well as the antibiotic sensitivity of patients using a continuous examination method.

The results of the study. To solve the problem of the presence or absence of flora in the contents of echinococcal bladders, we conducted bacteriological studies of echinococci in 151 patients operated in surgical clinics of the Samarkand region. 187 echinococcal bladders were examined, since in 23 patients echinococcal bladders were simultaneously located in several organs and, accordingly, in each case, the microflora was determined separately.

The patients were divided into 3 groups: I - under the age of 15 years, II - from 15 to 35 years, III-over 35 years. Group I consisted of 73 patients, group II-46 patients (8-with multiple lesions), group III included 32 patients (15 - with multiple echinococcosis).

According to the localization of echinococcal bladders in the organs, the studied material was distributed as follows:

1. samples from blisters localized in the lungs-67 (from patients of group I-27; from patients of group II-19; from patients of group III-21);
2. samples from blisters localized in the liver-81 (from patients of group I-36; from patients of group II-20; from patients of group III-25);
3. samples from blisters localized in the spleen – 3 (from patients of group I-1; group II-2);
4. samples from blisters localized in the kidney – 2 (in both cases from patients included in the III age group).

In cases of multiple echinococcosis, and there were 23 of them, the material was distributed: 10 - in group II, 13 - in group III. Of these, the localization of blisters in the lungs was noted in 7 cases (4 blisters in group II and 3 in group III); 9 echinococci from patients of group II and 3 from patients of age group III were examined from the lungs and liver.

Considering the dependence of the morphological modification of echinococci in the absence of microbial flora, it can be noted that in the morphological modification of E. acephalocysticus in 5 cases, this microbial flora was absent, i.e., the blisters were sterile. In E. hominis, only 6 bladders were sterile (this indicates that in most cases with this modification, the bladders are sterile).

At the same time, sterile bladders were taken from a patient of groups I and II from the liver - 1 each, from a patient of group III in 1 case from the liver and 2 times from 2 patients from the kidney, 1 time from a patient from the liver with multiple echinococcosis. When the kidneys were affected in 2 samples, the blisters were sterile.

When E. veterinorum is parasitized, the largest number of sterile samples is observed. This is probably due to the most common modification of echinococci in patients under consideration.

Of the 75 sterile samples, 64 were morphological modifications of E. veterinorum. At the same time, the first group of patients had 25 sterile samples (18 had blisters in the lungs, 6-in the liver, 1 patient - in the spleen). In group II, patients had 11 sterile samples with this morphological modification (5-in the lungs, 3-in the liver, 1 - in the spleen, 2-in the lungs with multiple lesions).

We found sterile echinococcal bladders with morphological modification of E. veterinorum (28) in individuals belonging to the III age group. In 10 cases, the blisters were located in the lungs, in 13-in the liver, in 4-in the lungs, in 1 case - in the liver with multiple lesions. We will consider all the infected samples regarding the age of the patients, the localization of the parasite in the organs and its morphological modification.

In addition, sarcocysts were found in the contents of echinococci from patients with combined-multiple echinococcosis with predominant lung damage.

Of the 187 samples examined, the contents of echinococcal cysts were infected in 112 cases, while in people belonging to group I - 40, in group II-38 and in group III-34. Of these, 55 echinococcal bladders were localized in the lungs: 22 bladders (in patients belonging to group I, 16-in patients from group II and 17-in patients from group III).

Echinococcal blisters with multiple lung lesions were studied in 2 patients of group II and 1-in a patient of age group III.

With a single lesion of the liver alone, we identified 44 cases of infected echinococcal bladder, and 18 of them were studied in patients from group I, 14-in patients from group II, 12-in patients from age group III.

Consider the distribution of infected samples depending on the morphological modification. We have not detected any infected samples of E. acephalocysticus. In E. hominis, there were 5 infected samples (1 bubble was found in the lung of a patient from group I, 3-in persons from group II, 2-in the lungs of patients with multiple lesions of two organs-the lung and liver-1). In group III, only 1 case of infection of the bladder with morphological modification of E. hominis was registered.

The majority of infected samples were found with morphological modification of E. veterinorum (96): in patients from group I - 36, with 11 localized in the lungs and 25 in the liver with a single lesion. Infected samples with morphological modification of E. veterinorum (34) were found in persons belonging to group II, while in the lungs there were 14 blisters with a single lesion, in the liver with a single lesion of infected samples, 14 were found, and in 6 cases there was a lesion of both the lungs and the liver.

In the study of E. veterinorum-infected samples obtained in group III, we found 26 echinococcal blisters, of which 13 were in the lungs and the same number in the liver. Liver damage infected with E. veterinorum was detected in 12 cases. E. veterinorum damage to two organs - the lungs and the liver - in persons belonging to group III was noted in 2 cases.

In some samples containing microbial flora, a pure microbial culture was detected, and in some-a mixed infection. Of the 112 infected samples, monoculture was detected in 76 cases, and mixed microflora in 36.

Monocultures of bacteria were isolated in 76 samples of echinococcal fluid (in 32 patients from groups I and II, 22-in patients from group III); by localization: in the lungs-in 49 patients, in the liver-in 35, simultaneously in the lung and liver - in 2 patients; by morphological modification: E. hominis - in 4 cases, E. veterinorum - in 70, suppurated-1, petrified-1.

All 76 samples of echinococcal fluid containing a monoculture of bacteria were distributed by type of microbes as follows: staphylococci-38, bacteria of the escherichia coli group-25, streptococci-4, diplococci-2, microbes of the protea group-2, the causative agent of brucellosis-3, mycobacterium tuberculosis-2.

Discussion. Microflora sensitivity to antibiotics produced outside the CIS: to kefadim (co-produced by the USA and Germany) was detected in 1 patient (2 %), to gentamicin (Bulgaria) - in 14 (28 %), to epocelin (Japan) - in 8 (16 %), to kefzol (Italy) - in 7 (14 %), to claforan (co - produced by Yugoslavia and France) - in 6 (12 %). The therapeutic effect of these antibiotics was tested in an experiment in 140 haisigo-brown chickens from the Netherlands. The chickens were first injected with a lethal dose

of pathogenic microflora isolated from echinococci in the operated patients, and then with antibiotics. Kefadim gave the effect in 100 % of cases.

Conclusions. This principle of treatment is used in patients operated on for multiple and complicated echinococcosis. From the above, it can also be concluded that the differentiation of pathogenic strains of microorganisms from apatogenic ones should be carried out by a comprehensive study of them using the following tests: plasma coagulation, hemolysis, fermentation of mannitol and dermonecrotic test, as well as by determining the DNase activity, since none of the tests separately can be a reliable criterion for pathogenicity.

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