



Biological observation

THE ADVANCEMENT OF STUDENT ECOLOGICAL OUTLOOK IN THE COURSE OF STUDY OF MEDICAL BIOLOGY

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SYNOPSIS

Key words:

ecology,
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parasitology,
crude drugs.

The main goal of ecological education in medical institutions is not only learning of thorough knowledge on ecology but also making of common ecological standard of doctors, advancement of their ecological outlook based on the perception to the nature as unique wealth. That is the reason why the fixed approaches to many of the divisions of courses of medical biology must be sufficiently revised. Much more attention should be given to study of biocenoses and their components. In an effort to organization of medical and prophylaxis work at the currently available scientific level the knowledge on the modern approaches about judicious use of natural health-improving resources is necessary.

INTRODUCTION

At present the ecological education is indispensable condition of higher education in Ukraine. However this term is often really a misnomer, as the synonym of "preservation of the environment". The misunderstanding that ecology is a separate science with particular subjects and methods of investigations as a rule is characteristic for politicians, journalists and physicians.

Under the Concept of the ecological education in Ukraine passed in 2001 this development must be the result of the synthesis of three main approaches: advancement of the modern ecological outlooks, advancement of new relationships to the nature and generation of modern strategies and technologies for the interactions with nature.

DISCUSSION

The main goal of ecological education in medical institutions is not only learning of thorough knowledge on ecology but also making of common ecological standard of doctors, advancement of their ecological outlook based on the perception to the nature as unique wealth. That is the reason why the fixed approaches to many of the divisions of courses of medical biology must be sufficiently revised. Particular attention must be given to medical parasitology since many textbooks on this course (Lazarev, 2003; Bazhora & Pishak, 2004; Slusarev & Zhukova, 1987) contains archaic approaches to problems of prophylaxis of parasitic invasions. For example as method of prophylaxis of visceral leishmaniasis, echinococcosis and some other diseases recommended to eliminate stray dogs and cats as organisms-vectors of parasitic diseases. There are also recommendations to do away with rodents as the reservoir hosts for the pathogens of cutaneous leishmaniasis or with mollusks as intermediate hosts of helminthes.

It is pertinent to note that above mentioned recommendations based upon the archaic idea on Russian academician SKRYABIN (1947) about devastation as way for complete liquidation of parasitic diseases and this approach is not to agree with modern ecological views and legislation on wild life protection.

It must take into account that reserve or paratenic hosts of majority of helminthes are wild animals such as gerbilles, hamsters, mollusks, crustaceans and other animals that are significant elements in the food chains or components of ecosystems. The elimination of these organisms may bring to a destruction of ecosystem as a whole.

As another illustration of ecologically inexpedient approach mention may be made of recommendation to eliminate the sand flies in the rodent burrows or bird nests using organophosphorous compounds (Lazarev, 2003; Bazhora & Pishak, 2004; Slusarev & Zhukova, 1987) which are extremely toxic both for human and animals and can be distributed via food chains.

Under teaching of use of plants, fungi and animals as sources of the crude drugs the consumer approach dominates in the medical institutions. These tendencies are particularly striking in presentation of information on medicinal and venomous plants.

Unfortunately in Ukraine the special course of botany included only in curriculums of pharmaceutical faculties of medical universities. In the course of medical biology includes the information on the peculiarities of some noxious plants but learning of properties of separate plants along with their morphology, ecology, chorology and the function in plant associations is necessary. It is possible only in the presence of sufficient number of teaching periods for lectures and practical trainings on botany with basis of ecology.

It has been known that about 85% of crude drug gathering in the native habitats of the species of medical plants. In the turn of the medical plants might in the range from 1-5% to 60-80% of species richness in the plant association. Thus of prime importance is directs the student's attention to necessity of protection of biodiversity and conservation of medical plant resources. The organization of the storage of crude drug must provide for guarding of medical plants. Thus before then begin to harvest is necessary to determine where, when and how to collect the plants in order to their preservation in the best way.

It should be borne in mind that the majority of medical plant species are included in the Red Book of Ukraine which does not preclude to their storage in nature and requires the development of the methods of artificial culturing of corresponding plants.

Also consideration must be given that, starting with works of founder of ecology Ernst Haeckel this science classified as evolutionary. Advances in medical research, aiming at combating parasitic diseases, development of our knowledge on plant and animal organism and environment relations are impossible if every principle of evolution is denied.

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