
紹 介

Present situation of clinical ecology in Bulgaria

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I studied ecological problems in Bulgaria. We had an economic crisis, and the industrial output decreased by 20% – 25% in 1992.

Workless is over 17% in the active population. The population in Bulgaria is about 9.5 millions (it is less than Tokyo) and the active part of population is about 4.5 millions. All this creates some social problems and a lot of troubles. The new government of Bulgaria, which came in the beginning of this year announces the program, which they called "Privatization program" and this is a very important (for as now) .

One-third of the ground is already private. The process of privatization is going on all other sectors of the economy. They are agriculture, tourism, chemical industry, telecommunications etc. Ministry of environment has been established about 1 year ago.

They discussed especially medical ecology problems.

After second world war, we had lots of new chemical industries.

Because of economic crisis, it is hard to modernize situation of the companies. For one example: One year ago, we had the problems with these chemical plants, in our town Russe, which located on the Danub river across Rumania. The similar chemical plants are in Rumania town too. The air and the river water was colored by output from chemical composes, which can not be testes from which area they come-from Rumania or from Bulgaria. We did not know their long-term toxic risks. We examined very carefully the actions of these agents in the atmosphere, water and ground and we had criteria and biological assessment of the environment. Up to these time, many people were adversely affected by these pollution and we must avoid them by teaching and prophylactics. We

would have environmentally sensitive patients more than 20,000 / or more. Preventive and occupational disease center in Russe has a special programs about examination of eye – , neurological – , immunological, respiration function etc. disease due to the effects of chemical pollution's. By this tests we found many eye disease, by the which are anterior eye segment disease allergic conjunctivitis, keratitis, lacrimal disturbances and uveitis etc. The smog agents produced extensive lacrimation on the first days, sectorial conjunctival irritation and erosions of the corneal epithelium were seen. We are measured the corneal sensitivity and found hyper on the first days and later, hypersensitivity of trigeminal nerve endings in the damaged cornea. These disturbances in most patients were repeated again. When it is chronic exposure, they underwent to iridocyclitis and uveitis. Lot of people have reading disturbances after this diseases. The pupillary reflexes showed another important toxicological indexes. We examined pupillary function although we have no quantitative results. The different groups of patients were examined: workers in chemical company, surrounding residents, and children. Usually chronic exposure has been associated with increased rates of bronchitis and other respiratory ailments. Some had neurological, dermatological or some had gastrointestinal disturbances. National and international commissions have slowly controlled this pollution. This problem is now worked out by Bulgarian and Rumanian governments.

Another important victims were Chernobyl incident. This resulted an increase of radiation level in Bulgaria on this time. Bulgaria nation was exposed from the beginning and many people never know about it. They exhibited on from the first days, a directly influence of radiation's, later on, long period

of the time exposure on the street. From the first day, some people got unknown diseases. Now we are examining all groups such as children, maturity women in this period, especially, the children born on these days. In our medical institutes we study blood diseases, immunology deficiency diseases, increase of allergy etc., which may be got from this accident.

Big programs are running in our radiology, pediatrics, oncology and other institutes in the Medical Academy. We also have nuclear electric power plant in Kosloduy town. The government is in a permanent contacts with international institutions and is in negotiations with them about reconstruction's, modernization's and innovation of the existing nuclear generators. There is international commission under the control of European Community, We are having a new ways of producing the energy. About neurological disease in Bulgaria, we have discovered, that two groups of the diseases increased in last time. These are: (I) Multiple sclerosis and (II) . Cerebrovascular diseases.

Firstly, the Bulgarian Neurological Association made epidemiological survey of multiple sclerosis together with the South East European countries. The studies showed that the incidence of multiple sclerosis is more than 20 per 100,000. It is significantly higher in comparison with other countries in Europe. The department of Neurology in Sofia made complex clinical examinations of cerebrospinal fluid, immunological and electrophysiological investigations. Therapeutic study of different drugs, such as changing the dosages of corticosteroids and anti viral drugs etc. in different form and stages of the Multiple sclerosis. About 2,000 patients of M.S. were examined during 3 years at neurology dispensary care—units. For example, we have examined the patients in the hospitals in two prefectures during past 10 years, who had optic neuritis without systemic neurological symptoms, We found 31% of them progressed to definite multiple sclerosis.

Cognitive function was studied on Multiple sclerosis, Parkinson's disease, Alzheimer's disease since the study is important for sociological points of view.

Secondly, Cerebrovascular disease is one of the major health-care problem. According to the world Health Organization's report, latest Bulgaria occupies the first place of cerebrovascular mortality in the world. Besides, in contrast to other European countries, in Bulgaria there is still an upward trend in mortality, caused by this disease. The aims of our studies

was to establish medico-social and environmental programs of cerebrovascular disease, specially in our country. Governmental cerebrovascular disease program analyzed the cerebrovascular disease during the past 10 years. An increase of this disease was about 60%.

It was found out that the mortality among the male population increased till 65% and that of the female was 55%.

Analyses revealed the highest and most rapid increase of the cerebrovascular disease among the rural population according to the urban one. The groups age 45 to 49 and 55 to 59 years were the highest increase of cerebrovascular disease.

The stroke is the most common for cerebrovascular mortality. Hypertension is one of the most important risk factor. We established high blood pressure especially among the young people with 20—30 years old when compared normal tensions of the group. The rate of stroke was 35% or more. Coronary heart disease is other important risk factor. I have selected about 20 cases who had the infarction of brain, eye and heart within the short period of time. In patients with diabetes mellitus, an incidence of the ischemic brain diseases are two times higher. Another risk factor is high level of blood cholesterol on ischemic vascular diseases. Over 70% of the adults in both male and female are smokers. Among the smokers brain stroke is 50% or more when compared with nonsmokers. Oral contraceptive pills are also important risk factor of the brain stroke. Type of the labor, life style, nutrition smokings are the major risk factors.

Stress situations becomes a new problem based on economical changes. Loss of work, is very important. Our psychiatrist's investigations showed an increases of depression and suicide.

At the pediatric neurology clinic there are common disease as well as such as epilepsy, brain trauma, but in these years multiple sclerosis, high blood pressure with cerebrovasculopathy among young people are increaseing together with hereditary disease.