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ATTAINMENTS OF MEDICAL SCIENCE IN THE STRUGGLE
AGAINST INFECTIOUS DISEASES IN THE TURKMEN SSR

COUNTRY: USSR

TECHNICAL TRANSLATION

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ATTAINMENTS OF MEDICAL SCIENCE IN THE STRUGGLE AGAINST INFECTIOUS DISEASES IN THE TURKMEN SSR

Scientific research in the field of prophylaxis of infectious diseases began in the Turkmen SSR only in the thirtieth year, when the Turkmen Medical Institute was constructed, a network of sanitary-epidemiological stations were developed, and when the institute of bacteriology was organized based on the republican sanitary-bacteriological laboratory. This was the first possibility to begin analyzing data on infectious diseases and to begin the study of epidemiology of various infections.

The Turkmen station was one of the most complex problems before the Soviet Public Health Department--to rid the population of the republic of exanthematic and relapsing typhoid, malaria, helminthiasis, leishmaniasis, and continual outbreaks of childhood infections.

The geographical peculiarities of the republic--the great expanse of borders with Iran and Afghanistan, sources of many rivers in adjacent countries, hot climate, extensive territory of the Kara-Kum Deserts, dispersion of settlements--created a rather complex sanitary-epidemiological situation and caused not only the development of infections, but also facilitated their wide distribution.

The recently constructed sanitary service and institute, naturally, could not encompass all the problems associated with the peculiarities of infectious pathology of the republic. Scientists of the central institutes and clinics of the USSR Academy of Sciences arrived to assist. A multiple expedition was organized, and carried out a series of investigations, mainly to disclose the reasons of morbidity from malaria, parasitic typhoid, and many naturally occurring diseases.

This expedition, which was led by important scientists--Professor Ye. N. Pavlovskiy, P. G. Sergiev, et al--also included local doctors and biologists: P. A. Petrishcheva, G. A. Pravikov, V. G. Timakov, I. V. Silant'ev, V. V. Suknev, N. V. Sukachev, V. V. Lavrova, V. A. Popov, G. A. Babayants, A. B. Karapetyan, et al.

From the complex of investigations in the field of epidemiology carried out in the Turkmen SSR in the years of Soviet rule, one may isolate two basic trends: the study of naturally occurring diseases and bacterial and virus infections.

The attention of the scientists was focused mainly on the diseases against which preventive measures had not been developed and which were seriously reflected in the health of the population and the economy of the republic.

First of all they began to disclose the causes of malaria morbidity. In 1935-1940 they were already studying its means of propagation and had developed measures for protecting the population. As a result, they succeeded in achieving a sharp reduction of morbidity, and then, despite the serious conditions of wartime, its elimination.

At the same time, extensive examinations were carried out as natural sources of parasitic typhoid, the biology and ecology of Acarina were studied--the carriers of recurrent typhoid. Prophylactic measures developed on this basis, were introduced into public health practice for the prevention of infection of the population, and already toward the end of 1946 this disease was also virtually eliminated in the republic Yu. V. Skavinskiy, E. B. Kerbabaev, et al).

The means of propagation of cutaneous and visceral leishmaniasis has been widely studied. As a result, a series of questions in epidemiology and therapy, in particular of visceral leishmaniasis were clarified (S. M. Dursunova, Ye. M. Belova), which allowed a sharp reduction of morbidity from this disease to be achieved.

At the present time research is continuing (A. B. Karapetyan, G. A. Babayants) on the carriers of naturally occurring diseases with the aim of developing methods of protecting the population from these diseases under the new conditions of irrigation of the republic (construction of the Karakum Canal).

Great attention has been paid to the study of the etiology of the intestinal infection. In this direction, much has been done by scientists of the Ashkhabad Institute of Epidemiology and Hygiene and also the Department of Infectious Diseases of the Turkmen Medical Institute--A. V. Vasil'eva, A. S. Medvedevyy, L. V. Skavinsaya, I. P. Gal'perinyy, S. I. Verdyeva, Ye. G. Stepanyan, and others, who determine the way in which these infections spread.

However, there is still a great deal which needs to be done in order to achieve complete conquest over these infections.

At the present time, work is being conducted in prevention of formation of carriers of bacteria of typhoid fever, which is searching for a more effective vaccine for specific prophylaxis. Great attention is paid to the study of the ediological structure of acute intestinal infections and the precision of their laboratory diagnosis.

The causes behind morbidity from infant infections are being studied, methods developed for laboratory diagnosis of paraptusoid infection, in scientific bases constructed for further reduction and elimination of diphtheria (V. P. Gushchina, N. K. Kudratulaev, E. M. Gurdzhiyants). With the aim of discovering the propagation of amebiasis and toxoplasmosis in the republic research is being conducted (M. F. Mizgireva, V. I. Yumaeva) and measures are being developed for prophylaxis of these diseases which cause many complications under the conditions of hot climate of the republic.

In the past five to six years, the study of virus infections has been developed in cooperation with the Department of Infectious Diseases. At the present time, data is being gathered on the ediology of Botkin's disease (N. V. Kiseleva), on the epidemiology of this disease (K. N. Stepanova), and on arboviruses and enteroviruses (M. N. Shashikhina, N. N. Nepesova).

A special place in the prophylaxis of the disease belongs, as is known, the hygienic measures. In the first years of the establishment of Soviet rule in Turkmen SSR, very little was done in the field of hygiene.

The first significant proceedings on the question of hygiene (housing under conditions of warm climate, standardization of mineralization of drinking water, determination of the nutritive value of local food products, hygiene of decontaminating villages, mineralization of everyday wastes) belongs to Professor N. A. Koro'henok, Associate Professor S. M. Margolinu, M. S. Melekhovitskomu, N. I. Grigor'yants, and E. I. Litman.

Colleagues at the Department of Hygiene of the Turkmen Medical Institute are working on the question of hygienic characteristics of (K. A. Kuliev), are studying conditions of work carpet weavers (Yu. D. Chebanov), are developing hygienic standards for school construction (Kh. I. Kuliev), etc.

In recent years at the Ashkhabad Institute of Epidemiology and Hygiene a study has been begun of work conditions and nutrition of workers in the petroleum industry and builders (B. G. Bagirov, N. V. Kartasheva, S. G. Yagodinskaya, T. A. Sokolova), hygienic characteristics of the sources of water supply in the republic are being developed and questions of utilization of drainage of water in irrigated fields (A. D. Mirishev, R. A. Agadzhanov, Ye. M. Dashkova). At the same time, work is being studied in the physical development and state of health of school children under conditions of polytechnical training (Kh. I. Kuliev, L. I. Avanesova).

Research has been begun in determination of the content of phosphoro-organic compounds and herbicides in the environment (Ye. B. Friedman, L. A. Frolova, T. A. Nezifi).

Thus, it can be stated that in the area of prophylaxis, the struggle against major infections and parasitic diseases in the Turkmen SSR has achieved significant success. In one of the most backward, in the latter regions during the years of Soviet rule successful elimination has been achieved of such infections as small pox, parasitic typhoid, malaria, and others, and sharp reduction in morbidity from diphtheria, helminthiasis, leishmaniasis, and other infections and parasitic diseases.

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