

## CHRONICLES

### ALL-UNION SCIENTIFIC CONFERENCE ON THE EXTENSION OF THE USE OF THE NATURAL RESOURCES OF MEDICINAL PLANTS ON THE BASIS OF A STUDY OF FOLK MEDICINE

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An All-Union Scientific Conference on the extension of the use of the natural resources of medicinal plants on the basis of a study of folk medicine, organized by the Ministry of Public Health of the USSR, the Ministry of the Medical Industry of the USSR, the Ministry of Public Health of the Georgian SSR, and the All-Union Scientific Association of Pharmacists was held in Tbilisi on October 27 to 29, 1971.

The conference was attended by 230 delegates, who arrived from all the unions of the Republic. There were 29 lectures, presented both by the individual ministries and boards of public health and by the scientific and teaching institutes of the country.

Opening the conference, the Deputy Minister of Public Health of the USSR, P. I. Gerasimov, pointed out its timeliness and urgency for the further intensification of the introduction and expansion of the natural resources of medicinal plants in medicine.

A considerable rise in the demands of the medical industry and the pharmaceutical network for medicinal plant raw material was reported at the conference. For this purpose it was proposed to use existing kolkhozes (collective farms) and sovkhozes (state farms), to create special farms and reserves, and to organize sowings of the necessary plants on the site of collection: pick one plant, sow ten.

The lectures of Prof. D. A. Murav'ev (Pyatigorsk Pharmaceutical Institute), Prof. V. G. Khrzhanovskii, A. I. Shreter, (All-Union Scientific-Research Institute of Medicinal Plants), and Prof. V. S. Sokolov (V. L. Komarov Botanical Institute, of the Academy of Sciences of the USSR) expounded the scientific principles of the search for medicinal plant raw material and the science of natural resources.

A. I. Shreter reported investigations connected with the evaluation of resources and the mapping of the most important and scarce plants, with the ecological and cenotic characteristics of species, and of the participation of workers of the All-Union Scientific-Research Institute of Medicinal Plants in the creation of an "Atlas of Areas and Resources of Medicinal Plants of the USSR."

The participants in the conference heard a lecture by Corresponding Member of the Academy of Sciences of the USSR S. Yu. Yunusov on the work of the Institute of the Chemistry of Plant Substances, of the Academy of Sciences of the Uzbek SSR devoted to the study of plants and the creation of medicinal preparations. In this institute, all the main classes of plant substances and each organ of the plant separately according to the vegetation periods and the different growth sites are being studied in an interconnected manner. The dynamics of the accumulation and the function and formation of these substances in the plants are being investigated. The work is being performed by botanists, chemists, physicists, pharmacologists, chemotherapists, phytotoxicologists, and technical engineers. The institute has introduced many new substances and is now introducing 22 new alkaloids and seven glycosides. S. Yu. Yunusov stressed that to make use of the experience of folk medicine it is necessary to isolate the active principle from the plant used in folk medicine.

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The lecture of Corresponding Member of the Academy of Sciences of the Georgian SSR P. G. Gelbakhnani, Academician of the Academy of Sciences of the Georgian SSR V. S. Asatiani, and Prof. A. E. Mshvidobadze gave an account of the results and prospects of investigations of the medicinal plants of Georgia. Workers of the pharmaceutical factory of Tbilisi State Medical Institute and of the I. G. Kutateladze Institute of Pharmacochemistry, Academy of Sciences of the Georgian SSR have introduced as curative preparations caffeine, tealbin, tannin, digalen-neo, digicilin, digicilen, filixan, rhamnol, sukpetin, and many others. The Institute of Pharmacochemistry has proposed a new industrial raw material for the synthesis of hormone preparations. A deeper study of the experience of folk medicine is being planned for the future.

The lecture of Prof. M. A. Angarskaya acquainted the participants in the conference with the work of the Khar'kov Chemical and Pharmaceutical Scientific-Research Institute. Cardiac glycosides, flavones, coumarins, and other classes of chemical compounds are being studied in the Institute. As a result, cardiac glycosides - digitoxin, convallatoxin, corelborin, strophanthin, komfotin, and others - are being supplied. At the present time, convallatoxin is being produced by partial synthesis. The replacement of the sugar component in digoxin - digitoxose - by rhamnose has given a several-fold increase in the biological activity of the glycoside. Strophanthin oxime has proved to be very active.

The favorable curative effect of flavonoids, coumarins, and furochromones has been established in various types of diseases of the cardiovascular system and the internal organs, in disturbances of the function of the kidneys, etc. Preparations obtained from hawthorn, toothpick ammi, parsnip, etc., have been introduced into production.

In the All-Union Scientific-Research Institute of Medicinal Plants (A. I. Ban'kovskii) investigations are being performed on alkaloids, terpenoids, flavonoids, quinones, coumarins, steroid compounds, organic acids, and substances belonging to other classes of chemical compounds. More than 200 individual substances have been isolated. The structures of 40 new substances have been established. However, the plants used in modern folk medicine (A. D. Turova) are being studied with insufficient success and only a few have been introduced into medical practice.

Questions relating to the improvement of the rational utilization of medicinal raw material, the training of qualified personnel (plant collectors), the biogenetic approach to the study of the plant cover, and the necessity of cultivating and introducing medicinal plants formed the center of discussion.

In his lecture, Prof. I. A. Murav'ev described the results of the actual "efficiency" of science in the practice of health care. He reported that the volume of investigations on medicinal plants completed in the last 10 years (about 250 dissertations have been defended) is inadequate to the limited number of plant materials (averaging nine per year) that obtain state approval.

Particular attention must be devoted to the introduction of medicinal plants of promise for the treatment of cardiovascular diseases, those with a hypotensive action, and those used for the treatment of thrombophlebitides, cholecystitises, hepatitises, and nephritises, and also tonic substances exciting the central nervous system, etc. Each author must himself, in the first place, be responsible for the introduction of the plant proposed by him into medical practice.

In the same lecture the question was raised of the complex utilization of the epigeal parts in those cases where the raw material consists of the roots and rhizomes and large tonnages are involved.

The decisions of the conference reflected both the main theses of the lectures and also the questions raised in the discussions.

On the territory of the I. G. Kutateladze Institute of Pharmacochemistry of the Academy of Sciences of the Georgian SSR on the first day of the Conference the solemn unveiling was performed of a bust of the founder of scientific pharmacy, pharmaceutical training, and the medical industry in Georgia, Academician of the Academy of Sciences of the Georgian SSR I. G. Kutateladze.