Information and analytical study of the presence and volume of microscopic studies of raw materials used in homeopathy A.V. Nefedova, T.L. Kiseleva

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Currently, the overwhelming majority of raw materials (80%) used in homeopathic practice for the preparation of medicinal products are raw materials of plant origin [5]. In order to objectively and reliably control the quality of plant materials used in homeopathy, classical pharmacognostic, as well as modern physicochemical methods of analysis are used. One of the most important sections of pharmacognostic analysis is the identification of authenticity based on the study of microscopic diagnostic signs of plants.

This work was carried out with the aim of analyzing various bibliographic sources in order to determine the degree of knowledge of the anatomical structure of medicinal plants used in homeopathic practice in the Russian Federation. This topic has recently become more and more relevant due to the tightening of requirements for the authenticity and quality of medicinal herbal raw materials (MPR), including raw materials used in homeopathy, as well as due to the need to develop regulatory documents (ND) for various homeopathic preparations and substances for their subsequent inclusion in the domestic homeopathic pharmacopoeia.

Were studied foreign literary sources - homeopathic pharmacopoeias from different countries: Germany [8, 9], France [11], Great Britain [7], India [10], as well as the Guide for the manufacture of homeopathic medicines by Dr. Wilmar Schwabe [6]. The carried out informational and analytical research made it possible to establish the following.

In V. Shvab's Guide, edited and supplemented in 1967 by V.I. A fisherman gives: the name of the producing plant and its distribution, a description of the plant or a description of the part of the plant used - depending on the type of plant; preparation method, characteristics and methods of analysis of the dosage form. It is possible to identify and determine the authenticity of a medicinal plant or raw material using the sections of the Manual "Description of the plant" or "Description of the applied part", respectively. A very brief description of diagnostic anatomical characters is present only in a small part of plants - 18 species out of 417 species described in the Guide (4%). It is not separated into a separate section, but is part of the "Description of the applicable part". This publication indicates that the raw material of pharmacopoeial plant species in dry form must comply with the requirements of the USSR State Fund VII [1] or IX [2] editions. For microscopy and numerical indicators of some plants (36 species), the editors of the publication make references to various types of ND - MRTU, NKVT, OST,

OST-NKVT.

The German homeopathic pharmacopoeia [8, 9] describes the largest number of plant species (286) in comparison with all other studied foreign homeopathic pharmacopoeias. The characteristic of the producing plant consists of a description of the plant and raw materials, microscopic characteristics, identification, examination for purity, in some cases - quantitative determination of active substances. Also given: the method of preparation of a homeopathic preparation, its characteristics, identification, research for purity, quantitative determination, storage. Microscopic description is presented in 97 species (34%), but graphic images (drawings, photographs) of micropreparations of the studied raw materials are not provided.

In the British Homeopathic Pharmacopoeia [7], only 48 plants are described. The articles include the following sections that regulate the quality of the producing plant and raw materials: description - external signs, microscopy; identification, research for purity. The anatomical structure of 4 plants is described - chamomile (dried roots), wormwood (dried flowers), colocynth (dried fruits), common quince (dried fruits); illustrations of micropreparations of these types of raw materials are not given.

Of the 220 plant species described in the French Homeopathic Pharmacopoeia [11], for 74 (34%) it is proposed to use microscopic examination. The following sections are provided that characterize the producing plant. "Description of the preparation" - consists of a description of the producing plant and (or) medicinal raw materials and microscopic examination (illustrations and photographs are not available); "Research" - qualitative reactions, chromatography, quantification.

The Indian Homeopathic Pharmacopoeia [10] includes 65 plant species. The article on a homeopathic herbal preparation includes the following sections describing the plant: "Description", "Macroscopic examination", "Part of the plant used", "Microscopy", "Identification" - using qualitative reactions and chromatography. Microscopic description is available for 37 species (57%), no illustrations. Separately, there are about 90 small articles that standardize the authenticity and quality of matrix tinctures of plant origin. They provide numerical indicators and methods for the qualitative analysis of matrix tinctures, but there is no description of the producing plants.

In all of the above publications, the nature of the raw materials used (fresh or dried) is often not indicated, and there is also no description of the methods for preparing micropreparations. The disadvantage of the articles is the lack of drawings or photographs illustrating the established diagnostic signs of the anatomical structure.

Domestic requirements ND, presented by To medicinal vegetable raw materials, incl. used in homeopathy are more stringent in comparison with the corresponding requirements of foreign homeopathic pharmacopoeias. According to the requirements for RD for medicinal product [4], the pharmacopoeial monograph of the enterprise should include the section "Microscopy",

illustrated with a drawing or photomicrograph. Microscopic analysis of raw materials, described in the domestic pharmacopoeial monographs of the enterprise (FSP) for fresh raw materials, is carried out in accordance with the methods described in the State Pharmacopoeia of the USSR XI [3].

The analysis of the literature shows that when microscopic examination is included as a criterion for the authenticity of a plant in the domestic homeopathic pharmacopoeia, one can only partially rely on data from foreign sources. The absence of illustrations in microscopic descriptions in all studied foreign sources requires a detailed study of this issue,

In connection with the above, it seems necessary to conduct a deeper and more detailed study of the topic of the anatomical structure of medicinal plants used for the manufacture of homeopathic medicines in the Russian Federation.

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