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Microscopy of herbal drugs in Pharmacopoeia Bohemica MMIX. II

Thesis

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Field of study Pharmacy

Microscopy is one of the identity exam of herbal drugs. The aim of the task is preparation of permanent preparatives of the drug called *Sanguisorbae radix*, description of its anatomical structure and furthermore process the image documentation of identifying characteristics of powder drugs' wet preparations formed by roots and rhizomes.

Permanent microscopical preparations were made by procedure of embedding in paraffin, coloring was made by haematoxylin and safranin. Powder drugs' microscopical preparations were proceed by dispensatory in pharmacopoeia. Photodocumentation was made by using programme called Quick Photo Micro 2.3.

Examined drugs were: *Aconiti tuber*, *Althaeae radix*, *Angelicae radix*, *Bardanae radix*, *Bistortae radix*, *Calami rhizoma*, *Curcumae xanthorrhizae rhizoma*, *Echinaceae angustifoliae radix*, *Echinaceae purpureae radix*, *Eleuterococci radix*, *Gentianae radix*, *Ginseng radix*, *Graminis rhizoma*, *Harpagophyti radix*, *Hydrastidis radix*, *Inulae radix*, *Ipecacuanhae radix*, *Iridis radix*, *Levistici radix*, *Liquiritiae radix*, *Ononidis radix*, *Petroselinii radix*, *Polygalae radix*, *Primulae radix*, *Ratanhiae radix*, *Rhei radix*, *Sanguisorbae radix*, *Symphyti radix*, *Taraxaci radix*, *Tormentillae rhizoma*, *Valerianae radix*, *Veratri albi radix*, *Zingiberis rhizoma*. Non-official drugs were examined along with officinal drugs, these drugs are using in our country or can be contained in drugs as a mistake.

Attention was paid especially to appearance and form of calcium oxalate, kind of vessels, sclerenchymatous fibers, essential cells or essential ducts and amylopectin appearance. Relevant identifying characteristics of powder drugs are evidenced by photographs and processed in summary sheet.

Microscopy is an important and reliable method to identify herbal drugs. Specific characteristics of the drugs were found in studied drugs and captured in various views and magnifications, they can be used for easier identification of powder drugs formed by roots and rhizomes.