

Morphoanatomical parameters for quality control of the herbal drug *Actaea racemosa* L.

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Background: *Actaearacemosa* L. (syn.: *Cimicifugaracemosa*(L.) Nutt.), known as black cohosh, is a homeopathic medicinal plant native from North America, and its rhizome and root extracts are potentialized and used mainly in the treatment of menopause as an alternative to hormone replacement therapy to relieve menopausal symptoms and anxiety^{1,2,3}. There are few studies regarding the morphoanatomy of this species for quality control, which is important for adding data to the literature and, enriching it with consistency. **Aims:** The study aims to characterize the morphoanatomy of the roots and rhizomes of *A. racemosa* for inclusion in the monograph da Brazilian Homeopathic Pharmacopoeia (BHP). **Methodology:** This species was analyzed by cross-sections and double stained with basic fuchsin and astra blue, then it was observed in light and scanning electron microscopy. **Results and discussion:** The rhizome, in cross-section, has an oval shape and has a suber formed by tabular cells. The cortical parenchyma consists of about 30 layers of cells, mostly polygonal, containing numerous starch grains. The vascular system is formed by several narrow and long collateral bundles. Fibers are found in the xylem. The vascular bundles are separated by wide parenchymal rays. The pith contains large amounts of starch grains. The root, in cross-section, has a cylindrical shape. The epidermis is uniseriate, the cortical parenchyma is formed by a few layers of angular collenchyma, and rounded parenchymatic cells containing numerous starch grains. The central cylinder has non-lignified endoderm and pericycle. The vascular bundles are formed by a well-developed xylem, forming a characteristic cross. Starch grains are spread throughout the root regions. **Conclusion:** The results can identify this vegetable drug used in homeopathy and will be included in the new edition of BHP.

Keywords: *Actaea racemosa*, Homeopathy, Morphoanatomy, Quality Control.

References:

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