

MICROSCOPIC CHARACTERISTIC THE HERB OF CENTAURIUM PULCHELLUM

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We have found by analysis of scientific literature, that Centaury normal or umbrella (*Centaurium erythraea* Rafn. or *umbellatum* Gilib.) describes in European pharmacopoeia (Ph. Eur.) 8.4, but in State Pharmacopoeia XI has the description of *Centaurium pulchellum* (*Centaurium pulchellum* (Sw) Druce), besides this species. State Pharmacopoeia XI contains the general description two types of raw materials, but their differences are wasn't describe.

The aim of our research was in finding of diagnostic anatomic signs of *Centaurium pulchellum* during microscopic investigations. Herb of *Centaurium pulchellum*, procured in July-August of 2014, was the object of researching.

We have used samples, treated by solution of chloral hydrate and we have done microscopic research of this staff according to requirements of Ph. Eur. 8.4 for finding the anatomic structure of stems, leaves and flowers of *Centaurium pulchellum*.

Stems. Parts of stems haven't ear-like outgrowths or have short or more extended ones, where angular collenchyma are situated (this sign is described in Ph. Eur. 8.4.). Cover tissue of stem is epidermis, created by large cells, covered by plicate cuticle. Under the epidermis chlorenchyma and several layers of parenchyma are situated. Sometimes groups of fibres can be finding by using the reaction with aniline sulphate (yellow coloration observed). Conducting elements of xylem have the same diameter. Vessels are narrow, porous, spiral. In the underbody of stem a core is gap-filling, and in overhead – considerably destroyed. Leaves. Leaf of centaury is isolateral. There are fragments of columned chlorenchyma that consists of the shallow rounded cells and cells-idioblusts with large druse in powder materials. Epidermal cells are winding, covered by a plicate cuticle. Stomas are large and numeral. Type of stomatal apparatus is anisocytic. Flower. The tube of calyx of flower is presented by tetragonal epidermal cells, with the thick-walled shells, pierced by pores. Small stomas of anomocytic type can be found in sepals' epidermis. Epidermis of corolla limb consists of extended, narrowed cells, which often have significantly winding shells. Yellow pollen grains are three-cornered-rounded or elliptic, about 30 mcm in a diameter. Seeds accumulate fat oil (reaction with Sudan 3 was used).

Thus, establishment of anatomic signs of herb of *Centaurium pulchellum* was did with the aim of standardization of homeraw materials.