

Rauwolfia serpentina (L.)

Benth. ex Kurz.

Rauwolfia Root

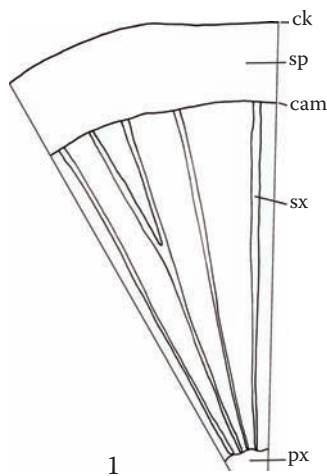
Rauwolfiae Radix

Sanskrit: Sarpagandha

Apocynaceae

Rauwolfia is native to India, Pakistan, Burma, Thailand, and Indonesia, among other regions. In India it was traditionally used for conditions ranging from snakebite and mania to epilepsy. Rauwolfia yields the hypotensive and sedative reserpine-group alkaloids.

Transverse section: Cork has a stratified appearance consisting of alternating narrow tangential bands of radially narrow nonlignified cells and radially broad lignified cells; phelloderm with starch present; secondary phloem is small, medullary rays indistinct, and cells thin walled, with loose connections and triangular intercellular spaces; calcium oxalate prisms are frequent, up to 30 μm in length, and somewhat irregular in shape, often having a lighter central zone; secondary xylem consists primarily of rectangular, thickened, pitted, lignified parenchyma with occasional calcium oxalate prisms; narrow vessels, up to 35 μm diameter, are arranged in narrow radial strands with few fibers between vessels; medullary rays are one to five cells broad and consist of radially elongated parenchyma;

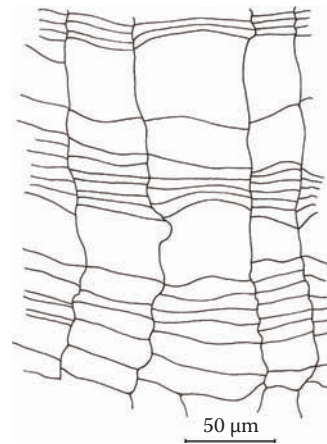


starch is abundant in parenchyma of secondary phloem and xylem.

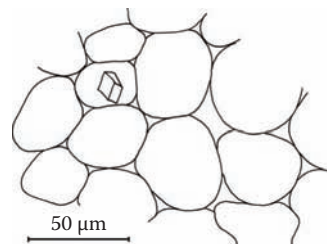
Longitudinal section: Secondary phloem cells occur in axial bands with adjacent rows staggered by half a cell length; vessels members are short with walls with bordered pits; fibers have oblique simple pits; secondary xylem parenchyma are rectangular.

Starch: Simple or compound granules in groups of two or three; individual granules can be up to 30 μm diameter, with conspicuous irregular central split.

Powder: Fragments of rectangular, thick-walled, pitted parenchyma; few fragments of vessels, thin-walled parenchyma, and cork; starch is abundant; calcium oxalate crystals are present.



2



3