Aristolochia fangchi Y. C. Wu ex L. D. Chou & S. M. Hwang

Aristolochia Fangchi Root

Radix Fangji

Pinyin: Guang fang ji, fang ji

Aristolochiaceae

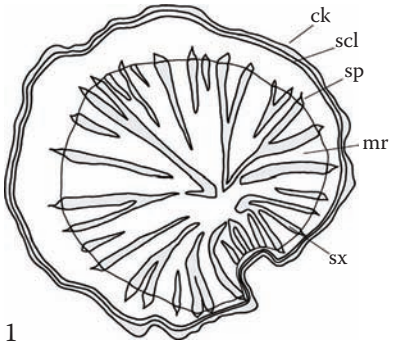
The roots of *Aristolochia fangchi* are used almost exclusively in traditional Chinese medicine. *A. fangchi* contains the toxic aristolochic acids (AAs) and, because of this, has been removed from the Chinese pharmacopoeia (PPRC). Ingredients or products for internal consumption that contain AA are prohibited for importation or trade in the European Union and United States, though certain species remain available in some parts of Asia. Nonetheless, *A. fangchi* may still be encountered in commerce and may be confused with other botanicals sharing the common name fang ji, including the nontoxic *Stephania tetrandra* (han fang ji) and *Cocculus orbiculatus* (mu fang ji). Other species of *Aristolochia* and species from many other genera from several families also share the common name fang ji. This nomenclatural problem is compounded by the similarity in appearance of *S. tetrandra* and *A. fangchi*. The microscopic characterizations for each of these species are provided in this text.

Transverse section: Conspicuous cork, up to 140 µm broad, is composed of thin-walled square or rectangular cells; a narrow band of parenchyma interior to the cork has numerous calcium oxalate cluster crystals ~30 µm diameter; several rows of yellow sclereids form a continuous ring; these are partially tangentially elongated up to 160 µm; a broad band of parenchyma occurs between the ring of sclereids and the secondary phloem; secondary phloem, including the rays, has scattered solitary sclereids and groups of several sclereids; near the vascular cambium, tangential rows of sclereids may also occur; secondary xylem of narrow, radially aligned groups of vessels, tracheids, and thickened parenchyma cells separated by broad medullary rays; vessels up to 250 µm diameter; medullary rays composed of parenchyma cells, calcium oxalate cluster crystals, and scattered sclereids with walls of differing thickness; secretory cells that have slightly thickened, convex cell walls are present but inconspicuous in the cork and medullary rays; fibers are absent.

Longitudinal section: Vessels with both simple and bordered pits, occasionally reticulate; pitted tracheids.

Starch: Present in cork and medullary ray parenchyma; simple or two to four-compound granules, spheroidal to elliptical, small, individual granules up to 28 µm diameter, with a central hilum or cleft.

Powder: Abundant sclereids are solitary up to 200 µm in length or in small groups consisting of smaller sclereids; parenchyma with cluster crystals of calcium oxalate (up to 35 µm in diameter); few fragments of wide, bordered-pitted vessels, but narrow, pitted tracheids are more frequent; wood fibers are accompanied by vessels; fragments of cork; starch cells.



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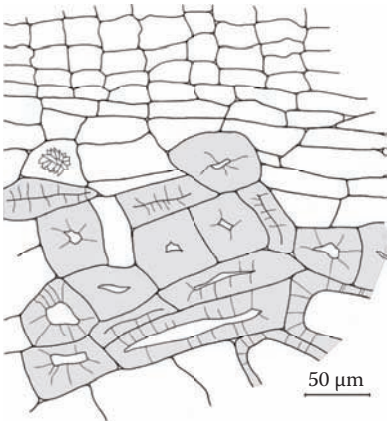

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