

Radix Cynanchi Paniculati versus Herba Asari (subterraneous part)



Source

***Radix Cynanchi Paniculati**
is the dried root or rhizome of
Cynanchum paniculatum (Bge.) Kitag.
in the family Asclepiadaceae

Herba Asari[#] (subterraneous part)[^]
is the dried subterraneous part of
Asarum heterotropoides Fr. var.
mandshuricum (maxim.) Kitag.,
A. sieboldii Miq. var. *seoulense* Nakai or
A. sieboldii Miq.
in the family Aristolochiaceae

Overview

Both Radix Cynanchi Paniculati and Herba Asari are listed in the Schedule 2 of the Chinese Medicine Ordinance and the Chinese Pharmacopoeia (2020). According to the *Zhong hua ben cao*, ancient Chinese literatures such as *Ben cao jing ji zhu* and *Xin xiu ben cao* recorded that the Radix Cynanchi Paniculati did look very similar to Herba Asari. As stated in the Chinese Pharmacopoeia, Radix Cynanchi Paniculati has the functions of dispelling wind, resolve dampness, relieving pain and itching, whilst the functions of Herba Asari are releasing exterior and dissipating cold, dispelling wind and relieving pain, open the orifices, warm the lung and resolve fluid retention. As the two Chinese Materia Medica differ in function, they should be used accordingly.

Note:

* Its name in Chinese Pharmacopoeia (2020) is “Cynanchi Paniculati Radix et Rhizoma”.

Its name in the Chinese Pharmacopoeia (2020) is “Asari Radix et Rhizoma”.

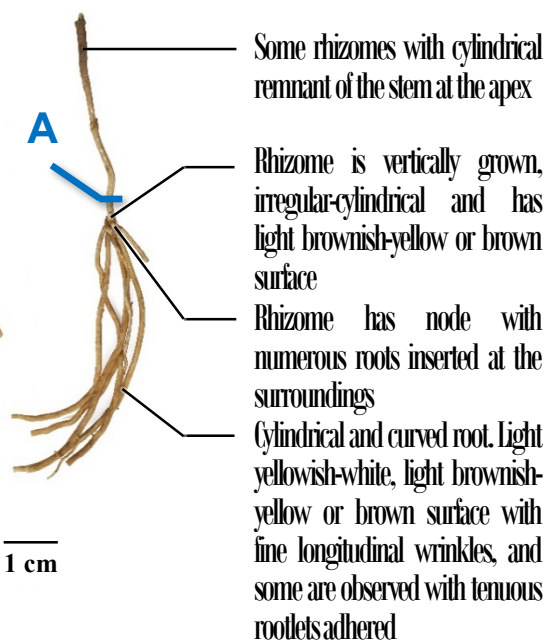
[^] The medicinal part recorded in Schedule 2 of the Chinese Medicine Ordinance is any or whole part; while the medicinal part in the Chinese Pharmacopoeia only includes the root and rhizome. Since only the subterraneous part is considered in current study, the term “subterraneous part” is listed to avoid confusion.

Key identification features

Macroscopic features of Radix Cynanchi Paniculati decoction pieces



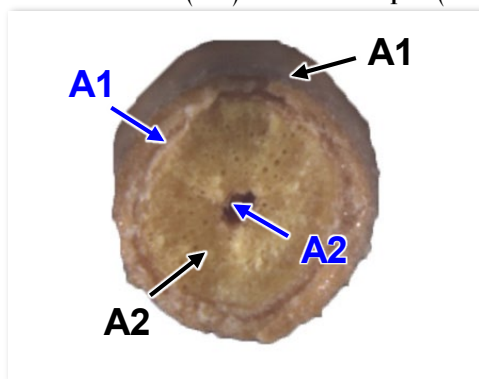
◆ With aroma



Micro-morphological features

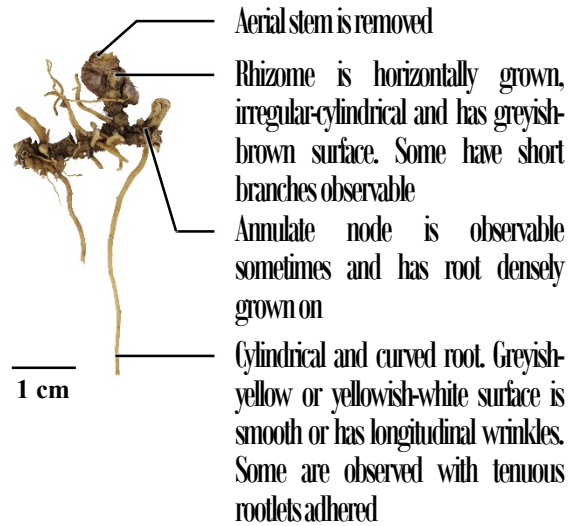
A1: Brown narrow bark(→) with light brown cambium ring(→)

A2: Broad wood(→) with hollow pith(→)



(Transverse section of the rhizome)

Macroscopic features of Herba Asari (subterraneous part) decoction pieces

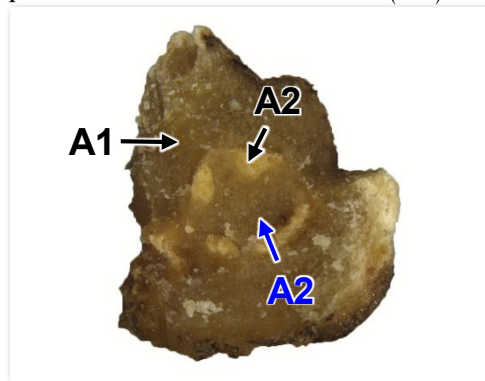


◆ Pungent odour with aroma

Micro-morphological features

A1: Brown or light yellowish-brown and broad bark(→) with indistinct cambium ring

A2: Narrow wood(→) is separated into several bundles. Pith(→) is brown or light yellowish-brown

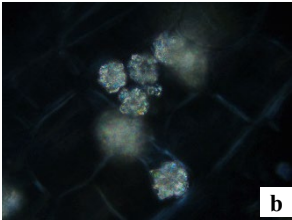
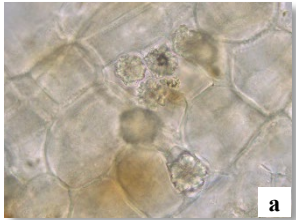

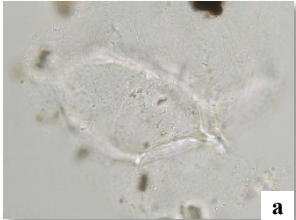
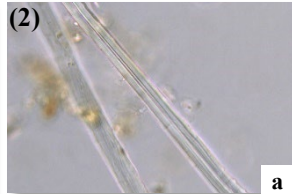
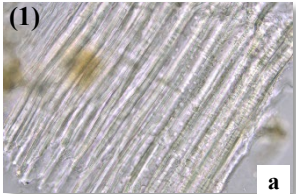
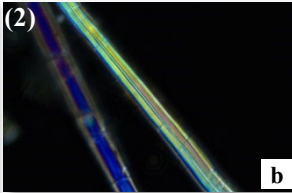
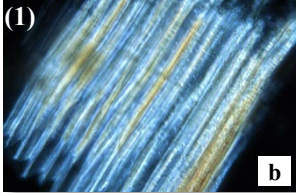
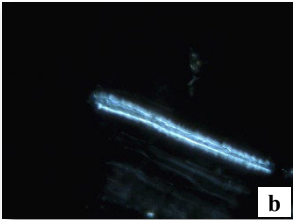


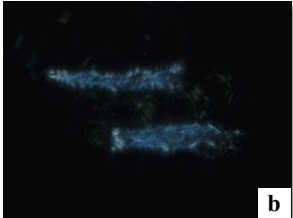



(Transverse section
of the rhizome)

500 μm

Microscopic feature comparison of Radix Cynanchi Paniculati decoction pieces and Herba Asari (subterraneous part) decoction pieces powder



	Radix Cynanchi Paniculati decoction pieces	Herba Asari (subterraneous part) decoction pieces
Crystal of calcium oxalate	<div></div> <p>Cluster of calcium oxalate presents in cells or scattered; polychromatic under the polarized light microscope</p>	<div></div> <p>Crystal sand of calcium oxalate extremely small, usually presents in cells; bright white under the polarized light microscope</p>
Fibre	<div></div> <div></div> <p>With 2 types. Xylem fibres(1) are frequently found, colourless or light yellow, mostly in bundles, with thick wall, pits, broad and distinct lumen; bright white under the polarized light microscope. Pericyclic fibres(2) are occasionally found, colourless, slender, mostly broken, with narrow lumen; polychromatic under the polarized light microscope</p>	<div></div> <p>Barely found or occasionally found, colourless or light yellow, wall thick; bright white under the polarized light microscope</p>
Stone cell	<div></div> <p>Absent</p>	<div></div> <p>Observable or barely found, mostly singly scattered, appears sub-square, sub-rectangular or polygonal, with distinct pits; bright white under the polarized light microscope</p>

a. features under bright field; b. features under polarized light

50 μm

Summary

Major differences in the features between Radix Cynanchi Paniculati decoction pieces and Herba Asari (subterraneous part) decoction pieces:

		Radix Cynanchi Paniculati decoction pieces	Herba Asari (subterraneous part) decoction pieces
Macroscopic and micro-morphological features	Appearance of the rhizome	Vertically grown	Horizontally grown
	Cut surface of the rhizome	Narrow bark, broad wood and hollow pith	Broad bark, narrow wood is separated into several bundles, with pith
Microscopic features	Crystal of calcium oxalate	Mainly cluster of calcium oxalate	Mainly crystal sand of calcium oxalate
	Fibre	Two types are frequently found	One type is barely found or occasionally found
	Stone cell	Absent	Present

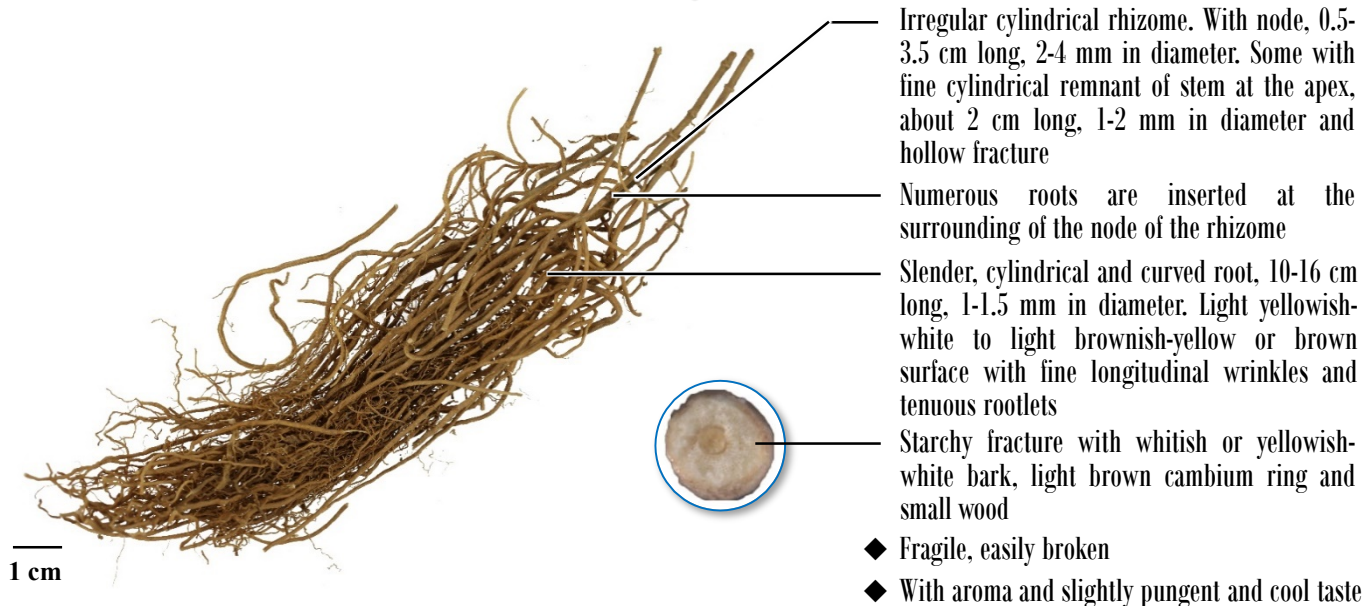
For more information, please refer to the [Hong Kong Chinese Materia Medica Standards website](#):



Cynanchi Paniculati Radix et Rhizoma - Hong Kong Chinese Materia Medica Standards (Volume 6)

Additional information

Photo of crude Radix Cynanchi Paniculati



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