

# Expert Herbal Reality Resource

## Andrographis

### Names

**Botanical Name** *Andrographis paniculata*

**Family:** *Acanthaceae*

**Common names:** Chiretta, king of the bitters (Eng), kalmegh (Hindi), kalamegha, kirata, mahatikta, bhunimba (Sanskrit); chuan xin lian (Chin), senshinren (Jap)

**Alternate botanical names:** *Justicia spp.*



### Description

Andrographis is a small green, shade loving annual shrub that can be found growing throughout India. It can grow up to 1m in height with shiny leaves that grow up to 8cm in length. Its branches are square-stemmed, often narrowly winged towards the top. The flowers are particularly beautiful but incredibly small; they are white or pale pink with brown or purple blotches in loose spreading axillary and terminal panicles. Its seed pods are yellow-brown, smooth and oblong in shape, approximately 2cm long.

### Constituents

- **diterpenoid lactones** collectively referred to as andrographolides
- **diterpene dimers**
- **flavonoids**

### Traditional use

In Ayurveda, the ancient healing system of India, andrographis was used as a bitter tonic, a remedy against intestinal parasites, and a general stomach tonic. It was said to increase appetite, strengthen digestion, and diminish flatulence, hyperacidity, and biliousness. It was also used in the management of many more complex conditions, including diabetes, hepatitis, and general debility. It was specifically used for feverish stomach complaints in young children and to help weak, convalescing individuals regain appetite and strength after illness.

Kalamegha literally means 'black cloud' perhaps attesting to andrographis being traditionally harvested just before winter. Andrographis is also known as bhunimba meaning 'Neem of the earth' referring to its bitter neem-like taste and effects.

Known as chuan xin lian in traditional Chinese medicine (TCM), andrographis was traditionally characterised as a bitter (or, in the terminology of TCM, 'cooling, drying') remedy. It is used in modern Chinese medicine to eliminate toxins ('heat'), especially in disorders of the lungs, throat, urinary system, and skin. 'Heat' patterns in Chinese medicine involve active inflammation, infection, swelling, and, often, burning pain. Examples in which andrographis showed most benefit include raw sore throats, influenza, bronchitis, lung infections and fever. Andrographis is believed to have particular benefit with 'damp heat' patterns affecting excretory functions,

particularly those relating to the liver, bile and kidneys, and is used when these were associated with diarrhoea, dysentery, and urinary problems. Externally, andrographis was used in TCM to treat oozing wounds, sores, carbuncles, scalds, boils, burns, eczema, and snakebites.

## Traditional actions

### India

**Rasa** (taste) Bitter.

**Virya** (action) Cooling.

**Vipaka** (post-digestive effect) Pungent.

**Guna** (quality) Light, dry, penetrating.

**Dosha** effect: strengthens *vata*, and reduces *pitta* and *kapha*

**Dhatu** (tissue) Plasma, blood.

**Srotas** (channels) Digestive, respiratory, circulatory, urinary.

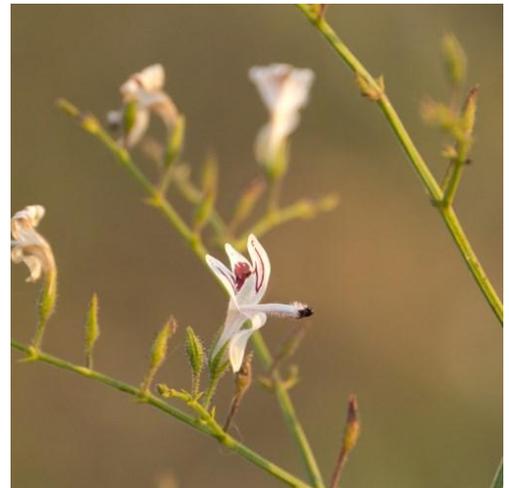
Andrographis is specific for *pitta* in the blood and an aggravated *ranjaka pitta*, and, in combination. It is especially useful where *pachaka pitta* is aggravated causing colitis, sensations of burning in the abdomen and diarrhoea from high *pitta*. Andrographis is useful in respiratory infections with high *pitta*, green mucus, thirst and fevers. Its bitter, light, dry and penetrating properties help to cut through thick phlegm from high *kapha*. Andrographis is useful when *pitta* aggravates the urinary channel (*mutravahasrotas*) causing urinary/kidney infections with dysuria, pyuria, haematuria and proteinuria.

## What practitioners say

**Immunity:** Andrographis is indicated where there is lowered immunity and acute and chronic infections. It is an immune stimulant rather than solely being anti-bacterial and can be used to reduce symptoms in influenza, upper respiratory tract infections such as common cold, coughs, sinusitis, sore throats, otitis media, and also for urinary infections and vaginitis.

**Liver:** Andrographis increases bile flow and offers protection to hepatocytes (liver cells), and with its bitter and cooling qualities, is well suited to liver infections and inflammation. As andrographis has very effective hepatoprotective as well as anti-viral activity, it should be considered in hepatitis and all forms of sluggish liver where there is a reduced ability to digest fats or alcohol.

**Digestion:** Andrographis was used historically in bacillary dysentery and enteritis. And including gut infections with parasites, protozoa and fungi. When andrographis is combined with warming aromatic herbs such as Cardamom (*Elettaria cardamomum*) and Cinnamon (*Cinnamomum zeylanicum*) it can stimulate the appetite and reduce mucus.





**Skin:** Hot, inflammatory skin conditions such as sores and eczema can be effectively treated with Andrographis. It can also be used externally as a wash or in a cream where there are signs of infection.

## Evidence

A systematic review of two reviews and eight clinical trials concluded that there was qualified evidence that andrographis was useful in the treatment of upper respiratory tract infections<sup>i</sup>

A later systematic review and meta-analysis again concluded that subject to methodological inconsistencies andrographis appears beneficial and safe for relieving acute respiratory tract infection symptoms and shortening time to symptom resolution.<sup>ii</sup>

## Safety

No significant adverse effects are associated with taking andrographis, although high doses may rarely cause gastric upset, urticaria (hives), or headaches.

Although there is no reason to suspect a risk in pregnancy in normal use, high doses have had had some problems in animals. Use cautiously at this time.

## Dosage

The daily maintenance dose for an adult is about 2 to 3 g dried herb equivalent; during infection, the effective dose is nearer to 6 g per day.

Because it is very bitter, andrographis may be difficult to take in liquid preparations.

## References

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- <sup>i</sup> Kligler B, Ulbricht C, Basch E, Kirkwood CD, et al (2006), Andrographis paniculata for the treatment of upper respiratory infection: a systematic review by the natural standard research collaboration. *Explore (NY)*. ;2(1): 25-9
- <sup>ii</sup> Hu XY, Wu RH, Logue M, et al. (2017) Andrographis paniculata (Chuān Xīn Lián) for symptomatic relief of acute respiratory tract infections in adults and children: A systematic review and meta-analysis. *PLoS One*. 12(8): e0181780.