

Glycyrrhizin (GL)

glycyrrhizin (GL), the main active component of licorice roots, protects cells from infection with influenza A virus (IAV). The antiviral effect, however, was limited to one or two virus replication cycles. Analysis of different GL treatment protocols suggested that the antiviral effect of GL was limited to an early step in the virus replication cycle. antiviral activity of GL is mediated by an interaction with the cell membrane which most likely results in reduced endocytotic activity and hence reduced virus uptake. [1]

It inhibited viral adsorption and penetration and was most effective when administered both during and after the viral adsorption period [2]

In addition to inhibition of virus replication, glycyrrhizin inhibits adsorption and penetration of the virus—early steps of the replicative cycle. Glycyrrhizin was less effective when added during the adsorption period than when added after virus adsorption (EC₅₀ 600 mg/L vs 2400 mg/L, respectively). Glycyrrhizin was most effective when given both during and after the adsorption period (EC₅₀ 300 mg/L). [2]

Glycyrrhizin is the molecule responsible for liquorice's peculiar flavour. It hampers the growth of other viruses, including herpes, and helps restore liver function in patients with hepatitis C. It is currently being assessed as a treatment for HIV infection, as it slows the replication of the virus in cultured cells.[4]

Glycyrrhiza uralensis, or Chinese licorice

One of the main uses of Glycyrrhiza uralensis is as a stress reliever. The herb is considered to be adaptogenic, meaning it is thought to help the body deal with stress. Those suffering from tension and anxiety can use the herb to help promote calmness and relaxation. Another medicinal property of the herb is its ability to increase circulation. This property helps improve overall health and vitality by increasing blood flow throughout the body and helping clear wastes more effectively. Illnesses that affect the respiratory system are sometimes treated using Glycyrrhiza uralensis. Both an anti-tussive and an expectorant, the herb is very helpful in reducing coughs and making them more productive. Those suffering from asthma or respiratory infections such as bronchitis will typically use an internally ingested preparation for treatment.[7]

AAYURVEDA:

Licorice has a centuries-long reputation of being grandma's sore throat remedy. Its botanical name is Glycyrrhiza glabra. The word Glycyrrhiza is derived from the Greek term glykos (meaning sweet) and rhiza (meaning root) and hence the name given to this 'sweet root'. Similarly, in the Ayurvedic materia medica it is called Yashti (wood) Madhu (honey), or honey-like wood.

Most "licorice" candy is flavored with anise oil and not real licorice.[4]

In the lab at least, an extract of the plant's root blocks the SARS virus from growing inside cells, new research reveals[2]

Excessive consumption of liquorice (more than 2 mg/kg/day of pure glycyrrhizinic acid, a liquorice component) may result in adverse effects, such as hypokalemia, increased blood pressure, and muscle weakness.

Licorice (Glycyrrhiza glabra) root tea, lozenges, or tincture may also be a good idea in winter months for some of the same reasons. Licorice is an immunomodulant and antiviral, and it is moistening, supporting the mucosa of the mouth and throat. Additionally, licorice may have some anti-inflammatory activity. Those with high blood pressure should avoid this herb and choose from among the others[5].

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