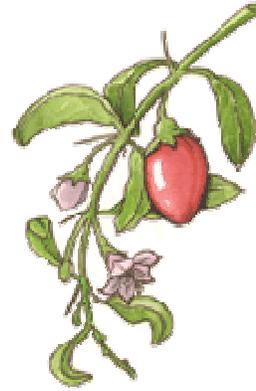




Lycium

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Scientific Name

Lycium barbarum; Lycium chinense; Lycium europeum

Common Name

Gou qi zi, Goji, wolfberry, lycium fruit, bastard jasmine, box thorn, tea tree, matrimony vine

Clinical Summary

Traditionally, lycium berry has been used to treat inflammation, skin irritation, nose bleeds, aches, pains and as a sedative ⁽¹⁾. It is also commonly used with other botanicals in Chinese medicine for poor vision, anemia, and cough ⁽⁹⁾. A polysaccharide isolated from lycium has been shown to have anti-tumorigenic ⁽²⁾, immune enhancing ⁽³⁾, and hepatoprotective ⁽⁶⁾ properties in vitro. It also showed radiosensitizing effects in mice ⁽⁴⁾. Data from an observational study done in China in 1994 suggest that Lycium Barbarum Polysaccharides have positive effects when used with certain cancer treatments ⁽⁵⁾. It is unclear if similar effects can be observed with cancer treatments that are currently in use. Well designed clinical trials are needed to verify Lycium's potential, but so far, none have been conducted. Lycium may have an additive anticoagulant effect when used with warfarin ⁽⁸⁾

** The efficacy and safety of lycium products for cancer treatment in humans have not been established.*

Purported uses

- Anemia
- Burns
- Cough
- Inflammation
- Pain
- Sedation
- Skin infections
- Visual acuity

Constituents

- Betasitosterol
 - Polysaccharides
 - Cerebrosides
-

Mechanism of Action

The bark and the berry contain betasitosterol which can prevent cholesterol absorption in the gastrointestinal tract ⁽⁷⁾. Lycium barbarum polysaccharide (LBP) has been shown to inhibit the growth of leukemia HL-60 cells ⁽²⁾ and increase the expression of interleukin-2 and tumor necrosis factor alpha ⁽³⁾. A cerebroside extracted from lycium chinense was shown to block the release of glutamic pyruvic transaminase and sorbitol dehydrogenase, suggesting hepatoprotective activity ⁽⁶⁾.

How It Works

The bark and berries of the lycium plant contain a substance called betasitosterol which is thought to lower cholesterol. Other substances isolated from the plant have been shown to improve immune response, improve the effects of radiation therapy, and inhibit growth of some cancer cells in laboratory and animal studies. An observational study conducted in China showed that lycium may improve the effects of certain therapy in humans. However, more well-designed studies are needed.

Research Evidence

Cancer Treatment

In a study conducted in China to determine if lycium could help improve the effects of other therapies, 75 patients with a variety of cancers were given either a regimen LAK/IL-2, or the LAK/IL-2 regimen along with an extract of lycium. Patients who received the LAK/IL-2 with the lycium extract had improved immune system activity. However, this effect has yet to be confirmed in well-designed clinical trials.

Warnings

- This product is regulated in the USA by the F.D.A. as a dietary supplement. Unlike approved drugs, supplements are not required to be manufactured under specific standardized conditions. This product may not contain the labeled amount or may be contaminated. In addition, it may not have been tested for safety or effectiveness.
 - More studies are needed on the efficacy of lycium in treating cancer. Patients should consult their oncologists before using any supplements during cancer treatment.
-

Herb-Drug Interactions

Warfarin: A case report of a woman on anticoagulant therapy whose elevated INR was thought to have resulted from drinking concentrated Chinese herbal tea made from lycium ⁽⁸⁾. Do not take if you are taking warfarin or other anticoagulant (Lycium may increase the effect of the drug.)

Side Effects

None reported.

Literature Summary and Critique

[Cao GW, Yang WG, Du P. \[Observation of the effects of LAK/IL-2 therapy combining with Lycium barbarum polysaccharides in the treatment of 75 cancer patients\]. *Zhonghua Zhong.Liu Za Zhi.* 1994;16:428-31.](#)

This is an observational study done in China on patients with a variety of cancers. The patients were treated with either LAK/IL-2 or a combination of LAK/IL-2 and Lycium Barbarum polysaccharides (LBP). The response rate, as judged by the objective regression of cancer, was 40.9% in patients who received the LBP compared to 16.1% in those treated with LAK/IL-2 alone. Patients who received the LBP supplement also had a greater increase in NK and LAK cell activities. However, it is unclear if lycium would show similar effects when used with other chemotherapy regimens. Further large scale studies are warranted.

** Lycium and related products have not been studied in large well-designed clinical trials. Human data are limited to anecdotal reports and small observational studies. Research cited in this monograph was not conducted at the Memorial Sloan-Kettering Cancer Center*

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