

Lobelia

Species (Family)

Lobelia inflata L. (Campanulaceae)

Synonym(s)

Indian Tobacco

Part(s) Used

Herb

Pharmacopoeial and Other Monographs

BHC 1992^(G6)

BHP 1996^(G9)

Martindale 32nd edition^(G43)

PDR for Herbal Medicines 2nd edition^(G36)

Legal Category (Licensed Products)

GSL^(G37)

Constituents^(G6,G22,G41,G64)

Alkaloids Piperidine-type. 0.48%. Lobeline (major); others include lobelanine, lobelanidine, norlobelanine, lelobanidine, norlelobanidine, norlobelanidine and lobinine.

Other constituents Bitter glycoside (lobelacrin), chelidonic acid, fats, gum, resin and volatile oil.

Food Use

Lobelia is not generally used as a food.

Herbal Use

Lobelia is stated to possess respiratory stimulant, antasthmatic, antispasmodic, expectorant, and emetic properties. Traditionally, it has been used for bronchitic asthma, chronic bronchitis, and specifically for spasmodic asthma with secondary bronchitis. It has also been used topically for myositis and rheumatic nodules.^(G6,G7,G8,G64)

Dosage

Dried herb 0.2–0.6 g or by infusion or decoction three times daily.^(G6,G7)

Liquid extract 0.2–0.6 mL (1:1 in 50% alcohol) three times daily.^(G6,G7)

Simple Tincture of Lobelia (BPC 1949) 0.6–2.0 mL.

Tincture Lobelia Acid 1–4 mL (1:10 in dilute acetic acid) three times daily.^(G6,G7)

Pharmacological Actions

The pharmacological activity of lobelia can be attributed to the alkaloid constituents, principally lobeline. Lobeline has peripheral and central effects similar to those of nicotine, but is less potent. Hence, lobeline initially causes CNS stimulation followed by respiratory depression. Lobeline is also reported to possess expectorant properties.

Side-effects, Toxicity

Side-effects of lobeline and lobelia are similar to those of nicotine and include nausea and vomiting, diarrhoea, coughing, tremors and dizziness. Symptoms of overdose are reported to include profuse diaphoresis, tachycardia, convulsions, hypothermia, hypotension and coma, and may be fatal.^(G45)

Contra-indications, Warnings

The pharmacological actions of lobeline are similar to those of nicotine.

Pregnancy and lactation Lobelia should not be used during pregnancy or lactation.

Pharmaceutical Comment

The principal constituent of lobelia is lobeline, an alkaloid with similar pharmacological properties to nicotine. Lobelia has previously been used in herbal preparations for the treatment of asthma and bronchitis, and in anti-smoking preparations aimed to lessen nicotine withdrawal symptoms. However, in view of its potent alkaloid constituents, excessive use of lobelia is not recommended.

References

See General References G5, G6, G9, G12, G22, G29, G32, G31, G36, G37, G41, G43, G48, and G64.