Leaves and flowers of the herb bugleweed (Lycopus virginicus and Lycopus americanus) and also its European cousin gypsywort (Lycopus europaeus) have long been used in the management of hyperthyroidism. A member of the mint family, bugleweed is also used to treat cough, reduce palpitations, reduce premenstrual symptoms, and it is used as a treatment for abdominal distension, bruises, edema, multiple sclerosis, and mastodynia (breast pain).

Bugleweed, which is native to United States, is also known as sweet bugle, Virginia bugle, Virginia water-horehound, and water Bugle.

Active Ingredients and Biochemical Actions

The active ingredients in bugleweed are lithospermic acid, phenolic acid derivatives, pimaric acid methyl ester, and caffeic, rosmarinic, chorogenic and ellagic acids. These compounds reduce levels of several hormones in the body, including thyroid stimulating hormone (TSH, thyrotropin), thyroxine (T4), prolactin and excessive estrogens. Normally, TSH orders thyroid cells to produce thyroid hormone. By decreasing TSH production, bugleweed reduces production of thyroid hormone.

Bugleweed also inhibits the binding of TSH receptor antibodies to the TSH receptor. In doing so, bugleweed prevents thyroid stimulating immunoglobulins (TSI, stimulating TSH receptor antibodies) from reacting with the protein receptor on thyroid cells. This, in turn, prevents TSI from increasing thyroid hormone production.

Dosage and Monitoring

The German Commission E Monograph, the recognized authority for herbal medicine, recommends using 1-2 grams of the whole herb daily. When a tincture of bugleweed herb (suspended in alcohol or a similar solvent) or an extract derived from the juice of the plant is used, the maximum recommended dose is 1-2 ml taken 3 times daily, not to exceed 6 ml daily. As an infusion or tea, one teaspoon of finely cut herb is steeped for 10 minutes in one cup of water, using 2-3 cups daily.

Bugleweed is often combined with other herbs, especially lemon balm (Melissa officinalis), skullcap, valerian, and gromwell (lithospermum ruderale) and blended into a tonic. Ingredients in tonics are often based on individual symptoms. For instance, lemon balm has sedative properties that help reduce symptoms of nervousness and anxiety.

Long-term use of bugleweed is considered safe. However, as with any treatment for hyperthyroidism, regular monitoring of thyroid hormone levels is needed to gauge the effectiveness of treatment and to prevent the development of hypothyroidism.

Precautions

Bugleweed should not be used in pregnancy or in nursing mothers. To date, the safety of bugleweed in pregnant women and in nursing infants has not been studied. Bugleweed
should not be taken in individuals who have moved into hypothyroidism as it can worsen this condition. Bugleweed should not be used before diagnostic procedures using radioiodine or before radioiodine ablation as it reduces iodine absorption.

**In Feline Hyperthyroidism**

Bugleweed is especially beneficial for cats with hyperthyroidism because of its nerve-calming and vaso-constricting properties. The doses for humans are based on an average weight of 150 lbs. The dosage for cats should be reduced proportionately.