

HYOSCYAMUS

Synonyms

Common Henbane, Hyoscyamus, Hog's-bean, Jupiter's-bean, Symphonica, Cassilata, Cassilago, Deus Caballinus.

Biological Source

Hyoscyamus consists of the dried leaves and flowering tops of *Hyoscyamus niger* Linn., belonging to family Solanaceae. It contains not less than 0.05% alkaloids, calculated as hyoscyamine.

Chemical Constituents

The chief constituent of Henbane leaves is the alkaloid Hyoscyamine, together with smaller quantities of Atropine and Hyoscine, also known as Scopolamine. The proportion of alkaloid in the dried drug varies from 0.045% to 0.14%. Other constituents of Henbane are a glucosidal bitter principle called hyoscytricin, choline, mucilage, albumin, calcium oxalate and potassium nitrate. On incineration, the leaves yield about 12% of ash. The chief constituent of the seeds is about 0.5–0.6% of alkaloid, consisting of Hyoscyamine, with a small proportion of Hyoscine. The seeds also contain about 20% of fixed oil.

Uses

It is used as antispasmodic, hypnotic and mild diuretic. The leaves have long been employed as a narcotic medicine. It is similar in action to belladonna and stramonium, though milder in its effects. The drug combines the therapeutic actions of its two alkaloids, hyoscyamine and hyoscine. Because of the presence of the former, it tends to check secretion and to relax spasms of the involuntary muscles, while through the narcotic effects of its hyoscine it lessens pain and exercises a slight somnifacient action. It will also relieve pain in cystitis. It is used to relieve the griping caused by drastic purgatives, and is a common ingredient of aperient pills, especially those containing aloes and colocynth.

Marketed Products

It is one of the ingredients of the preparations known as Muscle and joint rub (Himalaya Drug Company), Brahmi vati, Sarpagandhaghan Vati (Dabur) and Zymnet drops (Aimil Pharmaceuticals).

BELLADONNA

Synonyms

Belladonna herb; Belladonna leaf; Deadly night shade leaves; Banewort; Death's herb, Dwale; Poison black cherry; Folia belladonnae.

Biological Source

Belladonna consists of dried leaves and flowering tops of *Atropa belladonna* Linn. (European Belladonna), belonging to family Solanaceae. It contains about 0.35% of total alkaloids calculated as hyoscyamine.

Chemical Constituents

Belladonna contains 0.3–1.0% total alkaloids, the prominent base is l-hyoscyamine and other components are atropine, apoatropine, as choline, belladonnine, cuscohygrine, chrysa-tropic acid, volatile bases, such as atroscine, leucatropic acid; phytosterol, N-methylpyrrolone, homatropine, hyoscyamine N-oxide, rutin, kaempferol-3-rhamnogalactoside and 7-glu-coside, quercetin-7-glucoside, scopoletin, calcium oxalate, 14% acid soluble ash and 4% acid-insoluble ash. Addition of ammonia to the alcoholic solution of scopoletin shows blue fluorescence. This test is useful to detect Belladonna poisoning. Atropine is formed by racemization during the extraction process.

Uses

The drug is used as adjunctive therapy in the treatment of peptic ulcer; functional digestive disorders, including spastic, mucous and ulcerative colitis; diarrhoea, diverticulitis and pancreatitis. Due to anticholinergic property, it is used to control excess motor activity of the gastrointestinal tract and spasm of the urinary tract.

Belladonna is anticholinergic, narcotic, sedative, diuretic mydriatic and used as anodyne and to check secretion. Other uses are similar to *Hyoscyamus*. It relieves spasm of gut or respiratory tract. Consumption of Belladonna checks excessive perspiration of patients suffering from tuberculosis. Belladonna acts as a parasympathetic depressant.

Marketed Products

It is one of the ingredients of the preparation known as Belladonna plaster (Surgi Pharma) for backache, stiffness of muscles and boil, swollen joints.