Pasiflora Incarnata: A Pharmacological Overview

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Abstract: Passiflora incarnata is a homeopathic remedy prepared from the Passion Flower plant, traditionally used for treating nervous disorders such as generalized anxiety and insomnia. Clinical investigations demonstrate its efficacy in reducing anxiety and improving sleep by modulating the GABAergic system, resulting in calming and sedative effects without significant side effects. The remedy shows promise in alleviating neuropsychiatric symptoms including stress and depressive states. Treatment outcomes suggest symptom relief with continued administration, though symptoms may reoccur upon cessation, highlighting the importance of guided therapeutic use. This homeopathic tincture represents a valuable natural option for managing anxiety-related disorders and sleep disturbances.

I. INTRODUCTION

Botanical Name: Passiflora incarnata

Family: Passifloraceae

Synonym: English: Maypop

Part Used:-Fresh or dried leaves.

History & Authority: It was introduced by Hale, Hale's new rem.,1875, 4th Ed. After almost 100 years of study the sedative, antispasmodic and analgesic effects of this tropical vine have been firmly established in science.
The analgesic effects of passionflower were first clinically documented in 1897 while the sedative effects were first recorded in 1904

Properties: Nerve sedative (An agent which lessens functional activity), hypnotic (A drug which produces a sleep resembling a natural sleep), antispasmodic.

Bioactive compounds
Chemical analysis on passionflower indicates it contains three main groups of active chemicals: flavonoids, alkaloids & glycosides.

P. Incarnata has aromatase properties due to two flavonoid compounds: chrysin and benzoflavone moiety, the latter being more potent.

Chrysin: C15H1004 (5, 7-dihydroxy-2-phenyl-(9Cl).
Chrysin is naturally occurring flavones, which acts as an aromatase inhibitor, which supplement to bodybuilders and athletes. It has been shown to induce an antiinflammatory effect. Chrysin has also demonstrated significant antianxiety activity.

II. ALKALOIDS

Harmala alkaloids:
The Passiflora family contains small amounts of harmala alkaloids, harmane (passaflorine), and possibly harmine, harmaline, harmol, and harmalol.
Harman acts as a vaso relaxant something that reduces inflammation or oedema), it functions by releasing GABA, serotonin and nor adrenaline. A group of Harman alkaloids in passionflower have demonstrated antispasmodic activity and the ability to lower blood pressure

Glycosides
Glycosides play numerous important roles in living organisms. Many plants store chemicals in the form of inactive glycosides which can be activated by enzyme hydrolysis.

Many different types of glycosides are present in passion flower.

Other organic compounds
Passionflower also contains naturally occurring serotonin as well as a chemical called maltol which has documented sedative effects (and which might explain the natural calming properties of passionflower).

III. PHARMACOLOGICAL ACTION AND CLINICAL RESEARCH

1. Antimicrobial activity In Passiflora species, many of the chemical components of passionflower have antimicrobial activity.

2. Anti-inflammatory activity the aqueous leaves extract of Passiflora species exhibited potent anti-inflammatory action in the experimental model in VIVO.

3. Anti anxiety Generalized Anxiety Disorder (GAD) is the most common anxiety disorder but is generally less severe than panic disorder. GAD is probably the disorder most often found with a coexisting mental disorder, usually another anxiety disorder or a mood disorder.

Passion flower (P. incarnata) is used for the cure of nervous restlessness, sleepdisorders, restlessness, nervous stress and anxiety

4. Anti hypertensive It also contained Gama amino butyric acid, GABA, which has been reported to be an antihypertensive material. The extract contained a relatively high concentration of GABA, (gama amino butyric acid); the antihypertensive effect might be due to the GABA induced anti hypertensive effect and partially to the vasodilatory effect of polyphenols including luteolin.

5. Cough suppressant In a study passionflower leaf extract was shown to be comparable to the cough suppressant action of codeine.

IV. USES

- Passionflower is widely employed for its sedative, nervine, anti-spasmodic and analgesic effects.

- Passiflora is the remedy most used to treat insomnia, muscle cramps, hysteria, neuralgia, menstrual cramps and PMS.

- It is also employed for nervous disorders, insomnia, spasms, neuralgia, alcoholism, -hyperactivity in children, rapid heartbeat, headaches, and as a pain reliever an antispasmodic.

- Its force is exerted chiefly upon the nervous system, the remedy finding a wide application in spasmodic disorders and as a rest-producing agent. It is best adapted to debility and does not act so well in sthenic conditions.

- It proves especially useful in the insomnia of infants and old people. It gives sleep to those who are laboring under the effects of mental worry or from mental overwork. It relieves the nervous symptoms due to reflex sexual or menstrual disturbances, and the nervous irritability resulting from prolonged illness:

- Passiflora is a remedy for convulsive movements. n epilepsy when the aura gives warning of an approaching attack, the remedy is said to be of considerable value.

Probable Clinical indications:
For mood disorders (depression, anxiety, stress)

Insomnia and sleep disorders. Restless and wakeful, resulting from exhaustion. Especially in the feeble, infants and the aged. Insomnia of infants and the aged, and the mentally worried, and overworked, with tendency to convulsions. Nocturnal cough.

For headaches, migraines and general pain. Violent ache as if top of head would come off-eyes felt as if pushed out.

To relieve menstrual cramps and premenstrual syndrome (PMS).

Stomach.–Leaden, dead feeling after or between meals; flatulence and sour eructations.