



## **A STUDY OF EFFICACY OF PISCIDIA ERYTHRINA IN TREATMENT OF INSOMNIA**

*Dr. Shyam Fuse<sup>1</sup>, Dr. Pankaj Vishwanath Chaudhari<sup>2</sup>, Dr. Bhagyashri Narkhede<sup>3</sup>*

<sup>1</sup>. M.D. (Homoeopathy), Associate Professor, Department of Pathology.

<sup>2</sup>. M.D. (Homoeopathy), Assistant Professor, Department of Forensic Medicine & Toxicology.

<sup>3</sup>. M.D. (Homoeopathy), Assistant Professor, Department of Physiology Including Biochemistry.

Shri Chamundamata Homoeopathic Medical College & Hospital, Jalgaon - 425001 (M.S.) INDIA

E-mail: [shyamfuse@gmail.com](mailto:shyamfuse@gmail.com)<sup>1</sup>, [dr.pc2512@gmail.com](mailto:dr.pc2512@gmail.com)<sup>2</sup>, [Dr.Narkhede@homoeopathy.ac.in](mailto:Dr.Narkhede@homoeopathy.ac.in)<sup>3</sup>

### **ABSTRACT:**

Piscidia best suited for those insomnia cases that are due to proper anxiety at bedtime, overfilling thoughts and daily exhaustion, has sedative and analgesic properties, but minimal bad effects unlike opium. This study of the effectiveness of erythrine piscidia could show that its sleeping ability makes this drug the main therapeutic possibility of treating different degrees of insomnia in adults.

Behavioral counseling can help us control or eliminate the negative thoughts and concerns that keep USAWAKE. However, this is just a small piece of study and more energetic study with a large sample size is desirable.

30% of the general population complains about the period of insomnia annually requiring treatment. For diagnosis it is necessary to make sleep disorders at least

3 times a week for at least 1 month and this causes either significant anxiety or disrupts social and professional functioning.

**KEYWORDS:** Piscidia Erythrina, insomnia, Homoeopathic Treatment, Homeopathy and Homeopathic Medicine.

### **INTRODUCTION:**

Temporary insomnia occurs in times of stress or as "nozzle delay"

Short -term insomnia is often associated with personal problems either by disease or death.

Insomnia in clinical practice is usually secondary to other disorders, any painful condition, depressive disorder, anxiety disorder is often overlooked.

Insomnia also occurs with excessive use of alcohol or caffeine and dementia. Insomnia caused by secondary causes of pain may B as a result of hyperthyroidism, metabolic disorders.

There is no cause in about 15% of insomnia cases. People differ in the amount of sleep they require, and some of those who complain about insomnia can have enough sleep without realizing it.

#### **Prevalence**

Insomnia is found in all age groups, although it seems more common in women (especially after menopause) and in the elderly. It seems that the ability to sleep, rather than a need for sleep, decreases with age.

- Time and technology have changed a lot in our regime, eating habits and lack Exercise, day and night working hours. The drastic change of human routine in the last few decades has caused clinical conditions, such as sleep disorders, including insomnia or insomnia.
- Stress, depression, anxiety prevails so much that it affects our regular night sleep.
- Excessive use of smartphones, the Internet is also a common cause of insomnia.
- The predisposition to insomnia tends to run in family lines. It is assumed that genetics plays a certain role in whether one will suffer from this disease; Which is unknown to the medical community.

Piscidia erythrina

General Name- Jamaica Dogwood Botanical Name- Piscidiaerythrina Family-Fateaceae

Part-bark used

Components-isoplavones, organic acids, beta-sitosterol, tannins

Properties- analgesics, anti-inflammatory, antispasmodic, nervous, sedative.

History- This tropical shrub grows wild in Central America and the northern part of South America. The root bark works similarly to the relief of pain aspirin by blocking the enzyme, which produces inflammatory and pain causing chemicals called prostaglandins. From West Indian practice, she got her nickname "fish poisonous tree" when he used it for terrible fish to make it easier to catch.

Using- Jamai dogwood is a relatively strong sedative known as specific for migraine and headache, neuralgia and for the treatment of insomnia caused by pain, nervous tension and stress. The bark is against inflammatory and antispasmodic and can be used in cases of dysmenorea (painful period). Jamaican dogwood is a strong analgesic that can be used along with other herbs to treat musculoskeletal pain by arthritis and rheumatism.

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## REVIEW OF LITERATURE:

As it is reviewed in Davidson's principles and practice of medicine, the 22nd is a condition of insufficient or sleep quality.

Excessive drowsiness on the day is most often caused by insufficient night sleep related to fatigue and poor sleep hygiene, including excessive use of caffeine and/or alcohol in the evening.

Night sleep can also be disturbed by sleep apnea, movements of periodic limbs and syndrome of restless legs. Somnolence due to disturbed night sleep occurs especially after eating and during boring monotonous activities, such as long car roads. Such causes of daily drowsiness should be distinguished from narcolepsy.

### *Types of insomnia*

#### • temporary insomnia

Insomnia lasting from one night to a few weeks is referred to as transient. Temporary insomnia (transient insomnia) is usually caused by situational changes such as travel and stressful events. It takes less than a week or until a stressful event has been resolved. Short-term insomnia lasts 1-3 weeks,

#### • intermittent insomnia

If episodes of transient insomnia appear from time to time, insomnia is considered intermittent.

#### • chronic insomnia

Insomnia is considered chronic if this happens in most nights and lasts a month or longer. Chronic insomnia continues for more than 3 weeks.

#### • Insomnia can also be classified to:

1. Primary insomnia-is found in the absence of other health problems
2. Secondary insomnia-is due to health, such as heart disease, arthritis, cancer or heartburn, etc.

• Normal sleep length varies considerably in the normal population; Some are short sleepers, which require a small sleep. Short sleepers differ from those with primary insomnia by their lack of problems with sleep and the absence of characteristic symptoms of primary insomnia, such as intermittent vigilance, fatigue, problems with concentration or irritability.

• Daily deep sleepers, a characteristic feature of the primary hyper of insomnia, may also occur in primary insomnia, but not as serious as primary insomnia.

• When daily drowsiness is assessed as insomnia and no further diagnosis of primary insomnia is given.

Advanced age (insomnia occurs more often in persons over 60 years of age); Melatonin - a chemical, which is needed to induce sleep, reduce and at the age of sixty, is produced by our bodies. Without the presence of this chemical, the amount of sleep that the body receives is reduced. This can mean either growth earlier in the morning or the inability to sleep at night.

The causes of insomnia

3. Drug abuse on alcohol
4. Psychiatry disorders
5. Idiopathic insomnia

Other causes - may belong to

- Physical disorder- congestive heart failure, pregnancy, hyperthyroidism, night asthma and night seizures.
- Painful or unpleasant syndromes- tooth pain, arthritis and restless leg syndrome.
- Difficulty at launching sleep can be caused by psychiatric diseases such as; Anxiety, phobia, schizophrenia and depression.
- Drugs such as caffeine, antidepressants, beta blockers, alcohol and hypnotics.
- Reversing the sleep rhythm, observed in nozzle delay, head injury, encephalitis, sedative abuse, irregular work on night shift.
- Night enuresis [moistening of the bed in children], sleep, walking, sleep and night horrors can cause sleep disruption in children. Sleep apnea is a disorder characterized by a reduction or stopping (breathing, air flow) during sleep and may cause insomnia

SITUATIONAL Insomnia

- They usually have a recent onset.
- associated with exogenous events, life stress, death of family member or friend.
- Caused by environmental changes-sleeping place for sleeping or partner, shift work or nozzle delay.
- One of the reasons may be depression.

Behavioral insomnia

- Chronic insomnia associated with a characteristic personality.
- Preparing for sleep causes rumination, emotional excitement and increased autonomous activity.
- Focusing on the inability to fall asleep becomes self -service.

Fatal Familial insomnia (FFI)

- malformed proteins attack thalamus and disrupt sleep

Why piscidia? -

- Although homeopathic material Medica offers a wide range of medicines such as coffee, opium, passiflora, nux.vom, cocculus.indica etc. For insomnia
- But choosing a piscidiaFor research because it is a less proven medicine and less known.
- Piscidia is applicable in cases where the patient cannot use opium or morphine.
- In the insomnia Piscidia due to pain, concern or nervous excitement and usually produces a healthy sleep.

Piscidia erythrina

General Name: Jamaican Dogwood

Botanical Name: Piscidiaerythrina

Ethymology: Latin Word-Piscis: "Fish", Caedo: "Kill".



**Figure: 4 Plant of Piscidia**

Active Principle: Piscidin

Action: analgesic, antispasmodic, anti-inflammatory, narcotic, sedative taste: pungent, bitter

#### History-

Native nations around the world have used local poisonous plants to help fishing, and because of this many plants, it bears common names described for this use. In its natural range, the native Americans used the extract of bark, roots, twigs and leaves on Florida Fish Poison Tree to calm the fish, which makes it easier to catch. A number of chemicals present in the tissues of the tree are toxic to fish, the main is known rotenone.

She got her nickname "fish toxic tree" from West Indian practice as he used it for stupid fish.

A description of the plant

Piscidia is a shrub, deciduous, grows in a tropical climate up to meters. It belongs to the Fabiaceae family.

The cryry grows in coastal zones. It prefers well -drained sandy soils with the upper layer of humus. The tree has a certain tolerance to a short -term storm growth of brackish water or seawater. Although it grows in coastal conditions, the tree is usually protected from a direct salt spray adjacent to vegetation. Introduced trees are highly tolerant of drought. Its sensitivity to the cooling limits.

The tree reaches a medium size with a height of 12 to 15 m and the averages of 46 to 118 cm. An irregular open crown with strong and upright branches is developing.

Its deciduous leaves (9 to 23 cm long) are alternative and pinnaters. Five to 11 leaflets (every 4 to 8 cm long) are present in the opposite arrangement. The leaflets are dark green above and clearly paler -gray green below with pubescence.

Its white flowers are colored red or pink; In May they appear in clusters of similar peas and are attractive to bees.

The trees potentially bloom when they are about 4 m high and 4 years old. Flowers develop into light brown, beans (8 to 10 cm long) with four paper wings. In July and August, pods in July and August contain reddish -brown seeds with oval shapes.

The stem trunk is thin and olive gray color with irregular dark spots and many smaller scales. The bark has an unpleasant odor and a clearly pungent and bitter taste, causing a burning sense in the mouth.

After removal from the ripe pod, the seed germinates in 8 to 10 days when they sow about 6 mm deep in wet soil. As long as the seedlings become well -established, they should be fertilized and connected. The cuts placed in wet soil quickly hatch the roots. In fact, rooting was observed so easily, posts made of fresh wood sometimes rooted unintentionally.

In areas with appropriate climate and soil, Florida Fish Poison Tree creates a medium -sized shade with attractive seasonal flowers. It is ideal for yards and along the rows of the fence.

The species is an intolerant shadow requiring full sunlight for maximum development. The deteriorated brown wood of the fish pattern is resistant to decomposition, so its wood is suitable for outdoor use, such as building boats, fences and poles. Dense, firmly grained wood is also used as fuel, for coal production and as a good carving material.

Tradition and folklore

Root bark, like aspirin reliefs by blocking the enzyme that produces inflammatory and pain causing chemicals called prostaglandins.

Its traditional use also includes sedation, menstrual and psychiatric use, help for work.

#### Active ingredients-

Jamaican dogwood has isoflavones; Lisetin; Jamaicin; ichthyone; Rotenoids Rotenone, Milletone and Isomilletone; B-Sitosterol; and tannins.

Contains acid by piscidic acids, its mono and diethylesters; Fukic acid and its 3-0-methylester.

The chemical components are very variable among the Jamaica Dogwood trees, which come from different geographical regions.

#### Healing

As reviewed in the pharmacology of newer *Materia Medica piscidia*, it has an active feature to control pain and cause sleep.

Increases salivary and skin secretion, slows down pulse and increases arterial tension followed by a decrease in tension due to heart weakening.

It expands the pupil, with the exception of the state of asphyxia when there is a contraction. Dr. Issac Ott declares narcotics of frogs, rabbits and men.

Dr. Hamilton in Burnett's outline (P-684) states that the tincture of *Piscidia Bark* itself has astringent and irritating properties. It is powerfully narcotically and diaforetics that its local application will revitalize tooth pain again.

Internally, it is given to revive pain, overcomes cramps and causes sleep. It is a popular medicine in prolongation of insomnia in those too nervous temperaments

It also makes good service in neuralgia, migraine; Foltz praises her in the neuralgia of the eyeballs where the opium was not tolerated.

#### Adverse effects and warning

The known side effects of the use of Jamaican dogwood include:

1. Hallucinations
2. Depressive contractions of the uterus

Although Jamaica Dogwood shows low toxicity in some animal species, it may have irritating and toxic effects in humans. In some human subjects, Jamaica Dogwood reportedly causes adverse side effects of stomach anxiety and nausea. In both in vitro and in vivo studies, it has been shown that extracts from this plant have potential depressive activity. Excessive use of Jamaica dogwood should be avoided. Under no circumstances this plant should not be used during pregnancy and lactation.

#### Interaction-

No clinically significant interactions between Jamaica Dogwood and

It is known that conventional drugs have been reported in the literature so far.

#### Overview of *Materia Medica*-

##### Physiological action

At mild doses of *piscidia* reduces feeling, evokes sleep and increases saliva and sweating. In toxic doses destroys the feeling, paralyzes respiratory centers and reduces the effect of the heart; It first increases and then reduces the arterial voltage and reduces the pulse frequency. It is first downloaded and then expands the pupils in full overdose. It causes shortness of breath, spinal cramps, general paralysis and death.

Experiment recorded in T.F. Allen is W. Hamilton, who took the drachma tincture in the water for tooth pain and went to sleep so suddenly that when he woke up, twelve hours later, he still held the glass and the bottle from which he took the dose.

Sleep-sleeping experienced when he experienced, arrested so suddenly that he remained motionless all night with a tired bottle in one hand and glass from which I took the dose in the other until the sun was high above the horizon, the space for twelve hours when he first returned to consciousness, from every pain or pain, and without any pain. olive.”

Different source books wrote different signs and symptoms about *piscidiaethrin*, some are the following

As revised *Materia Medica* by John Henry Clarke<sup>12</sup>, *Piscidia Erythrina*-Jamaica Dog-Wood.

N. O. *Luguminosæ*. Tincture of the root cortex obtained when the plant is in flowering, in front of the leaf.

Clinical fever, sleep, sudden, sweat, abundant.

Characteristics- Buisits leaves and young branches of *piscidia erythrina*, some allied species are used, such as *cocculus*, for poisoning fish name *piscidia* (*piscis-cædere*).

#### Symptoms-

Mouth- when she chewed, unpleasant acrimones in the mouth like a gap. SLEEP.H “Sleep, as recorded in Allen's experiment.

Fever. “The violent feeling of heat in general, increasing the intensity; The burning feeling gradually spread to the surface, and while I was considering what an antidote I should use, a rich diaphoras exploded from every pore.”

In *Materia Medica* by Dr. Robin Murphy reports that *piscidia* can be used in tincture and all potency.

Clinically, it can be administered in asthma, bronchitis, coughs, fever, insomnia, tooth decay and tuberculosis.

Local tincture used for tooth pain in crumbled teeth. *Piscidia* is a good nerve sedative, hypnotic and narcotic.

Homeopathically, it is prescribed in restlessness and insomnia. Insomnia due to pain, concern or nervous excitement usually produces deep sleep.

Dysmenorrhea pain irregular menstruation regulates the flow. Neuralgia, ovaries or uterine

Fever with a violent feeling of heat generally increases the intensity, the burning feeling has gradually spread to the surface, and a rich diaphoresis exploded from each leather.

In *Blackwood Materia Medica*, *Piscidia* is a drug indicated in insomnia in a hat depending on nervous excitement, mental fear of anxiety in elderly patients, neurasthenic and children.

It is useful in the relief of pain as in dysmennorrhæa and ovarian neuralgia, overloading and displacement of the uterus.

It should be remembered in the night cough of lung tuberculosis.

## CONCLUSION:

This prospective observational study was done to study efficacy of lesser known drug *Piscidia erythrina* better identified as ‘Fish Poison Tree’ which is empirically known for its stupefying effects over the nervous system.

#### Following conclusions were drawn after study-

- We could visualize the sleep inducing property of the plant extract which is corroborated by the statistical evidences. The chief active component in *Piscidia erythrina* is *Piscidinacid* having profound sedative effects.

- Although “insomnia” is just a word but its presentation could be in many forms, 17/30 patients (56.66%) complaint of difficulty in falling asleep.
- Out of 30 case majority (70%) of them belongs to adult age group i.e.18- 64years,
- Piscidia erythrina is suitable for those cases where the cause of insomnia is on mental level (80%), even cases of panic attacks during sleep substantially improved by it.
- 73.33 % of cases belong to psoric miasm, 6.66 % to sycosis, 10% Psoro- sycotic & only 6.66% to Psoro-syphilitic.
- Only 18 out of 30 cases showed good improvement, 8 showed partial improvements may be due to maintaining cause as written in foot note of aphorism 7.

Role of behavioral counseling was also explored by Stuart Close in chapter-V ‘Unity of medicine’ in his philosophy “Genius of Homoeopathy” that selection of the remedy and its conduct of whatever auxiliary treatment is required always help. Therefore, avoiding caffeine before bed time, limit usage of mobile phones at bed, not staying awake in bed etc. helped patients significantly.

Patient suffering from insomnia treated with Piscidia erythrina can be saved from addiction of tranquilizers & anxiolytics, few cases were not improved which restored my faith in concept of individualization & cardinal principles of homoeopathy.

So, it can be concluded that in spite of variable presentation of insomnia, Piscidia erythrina played significant role in managing cases of sleeplessness due to mental worry, anxiety or prevailing thoughts.

This is just a small piece of study & more vigorous study with large sample size is however desirable.

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