

CRITICAL ANALYSIS OF DHATURA- AN AYURVEDIC APPROACH**Dr. Shweta Mumbarddi^{1*} and Dr. Sarojani Kuchanur²**

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ABSTRACT

Datura is a poisonous plant which is used as a medicine in the branch of Agad tantra which is one of the Astang Ayurveda. Datura, often tout as “Thorn Apple”, though careful as one of the deadliest plant species, for its super toxic mechanism, when inspired raw is also astonishingly a powerhouse of medical mechanism if purified properly. Be it the leaves, fruits, flowers, stem or roots, Datura has been usually used in both folklore medications and alternative therapies. However, due to the brawny hallucinogenic property of the plant, Datura is repeatedly used to reduce asthmatic symptoms and cut the pain during the surgery and bone setting procedures. Though a strapping narcotic plant, datura offer umpteen health profit and is broadly used for alleviate pain, treating fever, enhancing heart function, getting your strength back fertility, inducing sleep, easing childbirth and promote hair and skin health.

KEYWORDS: Ayurveda, Astonishingly, Purified, Asthmatic, Narcotic.

INTRODUCTION

Datura is a bushy, erect annual herb that usually grows to a height of 2-5 ft. The plant has a foul stench and is widely found growing naturally in clayey-loamy soils found in fallow fields, croplands, old feedlots, waste areas, nearby construction sites, deserted vacant places, and even in waste areas. The plant has purplish-green hollow stems and smooth erect oval-shaped leaves that are arranged alternately on it. Flowers have a pleasant smell and are found in 3 distinct colours which are yellow, red, violet or greenish-white in colour. They are

usually large and are bisexual and hypogynous. Fruits have a bitter acid-like taste and are knobby, ovate and are covered with short spikes. The seeds are enclosed within the fruits and are spiny, whereas roots are brown, cylindrical and branched.^[1,2]

Types of Datura

The Datura plant is itself a genus comprising different species of plants all belonging to the Solanaceae family. These species include

- *Datura metal
- *Datura reburra Barclay Datura innoxia Mill
- *Datura stramonium
- *Datura Alba
- *Datura fastuosa
- *Datura candida (Pers) Saff
- *Datura ceratocaula Ortega
- *Datura ferox L
- *Datura leichhardtii Benth
- *Datura innoxia Mill
- *Datura kymatocarpa Barclay.

Datura metal (Purple Datura)

This species of Datura is extensively used in ayurvedic and religious purposes and is widely used for the treatment of asthma, cough and cold and painful conditions.

Datura alba (White datura)

It usually bears white flowers and grows naturally in the Himalayas from Kashmir to Sikkim.

Datura stramonium (Black datura)

Being a source of a hypnotic drug known as stramonium, this species of Datura portrays potent hypnotic and sedative effects.

The holistic science of Ayurveda classifies this herb in “Upavisha Varga” which is a secondary toxic plant. Upavisha Varga usually means a category of plants of poisonous or toxic origin. Ayurveda vouches that in small doses these plants under the Upavisha category are effective and have medicinal uses but can be lethal if not purified through the Sodhana process or taken in excess.

This powerful herb is broadly mentioned in ancient ayurvedic scriptures of Charaka Samhita and Raj Nighantu for treating various problems including Deepana (enhances stomach fire), Pachana (helps in digestion), Kustha (treats skin disorders), Rochana (stimulates appetite), Amahara (treats indigestion), and Vamana (prevents nausea and vomiting), Rasayani (rejuvenates the whole body), Dahahara (relieves burning sensation), Mehahara (treats diabetic symptoms), Hridaya (treats heart problems), Kaphahara (prevents cough and cold), Varnya (improves complexion), and Svasahara (treats respiratory ailments).

Pharmacological Constituents Of Datura

Imbued with powerful hallucinogenic and deliriant properties, Datura has a mother lode of antioxidants, flavonoids, alkaloids, organic compounds, and minerals. The bioactive components in Datura include Daturine, Daturadiol, Hyoscine, Atropine, Noratropine, Fastudine, Allantoin, Hypocyanine, Norhyoscyamine, Tropane, Metelodine, Scopolamine, Mucilage, Albumen, Vitamin C, Niacin, and Malic Acids.^[3,5]

Parts Of Datura Used In Medicinal Formulations

Datura plant as a whole has several characteristic properties including anti-spasmodic, analgesic, sleep-inducing, expectorant, sedative, hypnotic, intoxicant, uterine stimulant and bronchodilator properties.

Owing to its several therapeutic properties, the entire plant, be it the fresh or dry leaves, seeds, roots, or fruits, Datura has carved its way in many traditional and alternative medications.

Datura seeds when used in raw form are extremely dangerous and poisonous, hence before using them in any formulation, the seeds require a series of *sodhana* or purification process, to detoxify the harmful effects, so as to reduce the toxicity levels in the human body and to promote the therapeutic value of the part.

Formulation of Datura

Kanakasava

This is Also known as Kanakasavam, this formulation contains purified Datura that is mainly aimed at the treatment and prevention of respiratory diseases. The presence of bronchodilator and anti-inflammatory properties, the formulation provides relief from an acute attack

of asthma and increases the airflow to the lungs by dilating and relaxing the bronchial pathways.

DISCUSSION

Datura is careful to be extremely lethal and poisonous for persons having the following conditions

- * Increased heartbeat
- * Glaucoma
- * Patients having pacemaker
- * Elevated intraocular pressure
- * Pregnant women and lactating mothers.

Datura Side Effects

Being a toxic plant, it is muscularly advocate using or consuming any part of the plant only after proper diagnosis and consultation with the doctor. Specifically, datura leaves and seeds contain a high concentration of poisonous alkaloids like Daturine and albumen in adding to mucilage and ash. These alkaloids contain about 25% potassium nitrate. If the plant parts are consumed raw without purification, it can be extremely lethal towards health.

An over dosage or use of impurities Datura can lead to the following health conditions

- *Hallucination and intoxication
- *Fever
- *Vertigo
- *Restlessness
- *Dry mouth
- *Heart palpitation
- *Muscle stiffness
- *Urticaria
- *Allergic reactions
- *Increased heart rate
- *Increase in Intraocular pressure.

In certain chronic cases, it can be extremely lethal and can ultimately cause unconsciousness, coma and even death.^[6]

CONCLUSION

Dahtura is a medicinal plant with innumerable uses like treating fever, heart problems, respiratory disorders, psychotic conditions, insomnia, depression, getting better digestion and skin disorders, it must be made clear that the plant should only be used under doctor's approval. The use of an impure plant part or expenditure of an incorrect dosage can be extremely lethal and can cost your health.

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