

# **REVIEW ON THE MEDICINAL IMPORTANCE OF SUNTHI (ZINGIBER OFFICINALE ROSC.) IN AYURVEDA**

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# Dr. Amit Sharma<sup>\*1</sup>, Dr. Rahul Kumar Singh<sup>\*2</sup>

<sup>\*1</sup>MD Scholar Ayurveda Dravyaguna Himalayiya Ayurvedic Pg Medical College And Hospitael Dehradun Uttarakhand, India.

\*2Associate Professor Department Of Dravyaguna Himalayiya Ayurvedic Medical College And Hospital Dehradun, Uttarakhand, India.

## ABSTRACT

India is enriched with a rich wealth of Medicinal Plants. Sunthi (Zingiber officinale Rosc.) is an important medicinal plant. It is cultivated almost throughout India. It is an erect perennial herb with aromatic rhizome. It is used in tea and also mixed with vegetables to eat. It naturally occurs in many countries like India, Mexico, West Indies, South East Asia, China and other countries of the world. Sunthi has been used in India as Ayurveda medicine as well as home remedies since ancient time. Amaldehyde, Shogaol, Paradol, Gingerol etc. are the different chemical components available in Ginger. In Ayurveda Sunthi has been described as mahaushadh means a great medicine. In Ayurveda Sunthi has been described as Vishvabhesaj means the universal medicine. Research shows that Sunthi has Anti - Inflammatory, Antimicrobial, Antioxidant, anticancer properties and also useful in gastrointestinal, cardiovascular and sexual disorders. This review study is aims to information about cultivation, Medicinal uses, botanical Description of Sunthi.

Keywords: Medicinal Plants, Herb, Ayurveda Medicine, Gastrointestinal, Cardiovascular, Anticancer.

#### I. **INTRODUCTION**

Sunthi is the most common herbs used in Ayurveda. It is specifically used for digestive disorders and inflammatory conditions. It has been observed that Sunthi is considered as 'Vibandhahrt (alliveates constipation) but at the same time it is also indicated for Atisara. It is important to identify that the former indication is for Sunthi when it is given in the powder form without Anupana, the later property is exhibited when administered along takra (butter milk).

Kaiyadeva described the medicinal properties of the terminal buds of the rhizomes separately. It is mainly indicated in Amavata.

- Botanical Name Zingiber officinale Rosc.
- Family Scitaminae
- Hindi Name Sonth

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- English Name Ginger
- Sanskrit Name

#### Sunthi, Nagar, Mahaushadh, Vishvabhesaj Table-1: Synonyms of Sunthi in various Nighantus :

| Sr. No. | Synonyms     | BPN | DN | KN | PN | MPN | NA | RN | SN | SGN |
|---------|--------------|-----|----|----|----|-----|----|----|----|-----|
| 1.      | Ardraka      | -   | -  | -  | -  | +   | -  | -  | -  | +   |
| 2.      | Katu Ushnam  | -   | -  | -  | -  | -   | -  | +  | -  | -   |
| 3.      | Katu granthi | -   | -  | -  | -  | -   | -  | +  | -  | -   |
| 4.      | Katubhadra   | +   | +  | +  | -  | -   | -  | +  | -  | +   |
| 5.      | Katuyaka     | +   | -  | -  | -  | -   | -  | -  | -  | -   |
| 6.      | Mahaushdh    | +   | +  | +  | +  | +   | +  | +  | -  | -   |
| 7.      | Sonth        | -   | -  | +  | -  | -   | +  | -  | -  | -   |

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| 8.  | Sunth        | + | + | - | + | - | + | + | + | - |
|-----|--------------|---|---|---|---|---|---|---|---|---|
| 9.  | Sringavera   | + | + | - | - | + | + | + | - | + |
| 10. | Nagara       | + | + | + | - | - | + | + | - | - |
| 11. | Rahubhadra   | - | - | + | - | - | - | - | - | + |
| 12. | Visvabhesaja | + | + | + | - | - | + | + | + | - |
| 13. | Vishvaaushad | - | + | - | - | - | - | + | - | - |
| 14. | Visva        | + | + | - | + | - | + | + | - | - |

BPN - Bhav Prakash Nighantu

KN - Kaiydeva Nighantu

MPN - Madanpal Nighantu

PN – Priya Nighantu NA – Nighantu Aadarsh

SN - Sankar Nighantu

DN - Dhanvantri Nighantu

RN - Raj Nighantu

SGN - Shaligram Nighantu

Though there are no varieties in Ardraka Kaiyadeva described Ardra Nagra and Ardrakam (Sunthi) separately. Their properties are also different. The former is fresh ginger and later is dry ginger.

In Amarkosha dry ginger is denoted as Nagara and Visvabhesaj etc. while describing fresh ginger as Ardraka and Sringabera etc.

**Botanical Description -**

An erect perennial herb with aromatic rhizome.

Stem – Erect, leafy, 15-150 cm tall.

Leaves - Subsessile, linear-lanceolate or lanceolate, acuminate, glabrous, 10-30 cm long.

Flowers- Shoot upto 12 cm long, clothed with sheaths bracts 2-5 cm, light green, corolla tube light yellow, lip orbicular, dull purple with creamy blotches.

Flowering and fruiting during July to September.

Distribution - Cultivated almost throughout India. Mainly in Karnataka, Gujarat, Kerala, Madhya Pradesh, Himachal Pradesh, Bihar, Orissa, Uttar Pradesh.

| Sr.<br>No. | Propertie<br>s | BPN              | DN     | KN               | PN | MPN   | NA               | RN         | SN          | SGN                  |
|------------|----------------|------------------|--------|------------------|----|-------|------------------|------------|-------------|----------------------|
| 1.         | Rasa           | Katu             | -      | Katu             | -  | Katu  | -                | Katu       |             | Katu                 |
| 2.         | Guna           | Guru,<br>Tikshna | Snigdh | Snigdh,<br>Laghu | -  | Guru  | Snigdh,<br>Laghu | Snigd<br>h | Snigdh      | Snigd<br>h,<br>Laghu |
| 3.         | Virya          | Ushna            | Ushna  | Ushna            | -  | Ushna | Ushna            | Ushn<br>a  | Ushna       | Ushna                |
| 4.         | Vipaka         | Madhura          | Katu   | Madhura          | -  | -     | Madhura          | -          | Madhu<br>ra | Madh<br>ura          |

Table -2: Sunthi properties According to various Nighantus:

In different Nighantus Shunthi has been described in different Varga.



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| Nighantu              | Varga                |  |  |  |  |
|-----------------------|----------------------|--|--|--|--|
| Bhav Prakash Nighantu | Harityakadi          |  |  |  |  |
| Dhanwantri Nighantu   | Satapuspadi          |  |  |  |  |
| Kaiydeva Nighantu     | Ausadhi              |  |  |  |  |
| Priya Nighantu        | Pippalyadi           |  |  |  |  |
| Madanpal Nighantu     | Sunthyadi            |  |  |  |  |
| Nighantu adarsh       | Pippalyadi Ardrakadi |  |  |  |  |
| Raj Nighantu          | Pippalyadi           |  |  |  |  |
| Shaligram Nighantu    | Harityakadi          |  |  |  |  |

Acharya Charak has mentioned Shunthi in Triptighna, Arshoghna, Dipaniya and in Trishnanigraha. Aacharya Shushrut have described Shunthi in Ausadhi Varga and Aacharya Vaghbhat has described Shunthi in Pippalyadi Varga.

#### Major Chemical Constituents-

 $\alpha$ -curcumene,  $\beta$ -curcumene,  $\beta$  – bourbornene, d-borneal, citral, d-camphene, citronellol, geraniol, gingerol,  $\alpha \& \beta$ - Zingiberenes, zingiberol, zingerone, gingirols, paradol, gingerenone A, ginger glycolipids A, B, & C; [6] gingerdiol; gingerone B & C etc.

Karma – Vata Kaphahara, Dipana, bhedana.

#### Indication-

Sula, Amavata, Adhmana, Atisara, Slipada, Kasa, Svasa, Hrdroga, Sopha, Agnimandya, Kustha, Jvara, Pandu, Raktpitta, Vibandha, Hikka, Arsas.

#### **Contraindication-**

The properties of Shunthi is Ushna and Tikshna so it should be avoided in Pandu Roga (Anemia), Jwar (fever), Vrana (Ulcer), Raktpitta (bleeding disorder) and in Mutrakrichh (dysuria). It should also avoided if allergy from ginger. There should be caution while taking during pregnancy. It should not be taken during abnormal bleeding.

#### Adverse Effect of Shunthi -

There are no such side effects of the Sunthi but there can be mild side effect in rare condition like increase Heartbeat, itching sensation, or swelling on the tongue.

#### Drug Interaction -

Shunthi should not be taken with other anti-inflammatory drug because it can have reaction. There should be avoiding while taking Ibuprofen, heparin and other medicines which have the bleeding tendency.

#### **Therapeutic Uses-**

- a. Jaladosa- Ardraka and Yavaksara are taken together with leukworm water.
- b. Pratisyaya Ardraka is given with milk.
- c. Kaphaja Arsas Ardraka and Kulutha are used.
- d. Murcha Ardraka svarasa is used as Nasya.

#### Part Used- Rhizome

Dosage – Fresh Juice 5-10 ml, Powder 1-2 gm; syrup 2-4 ml

#### **Important Preparation-**

Soubhagya Sunthi, Panasama Churna, Samasarkara Churna, Ardraka Khanda, Ardraka Ghritam, Kottamchukadi tailam, Nagaradi Kashayam, Ardraka khand avalehya, Ardraka Rasayana.



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## II. MODERN SCIENTIFIC REPORTS

- Acetone extract of rhizome of Z. officinale is attributed with the antioxidant property (bandyopadhyay, 2001).
- The aqueous extract of ginger arrested the growth of M. tuberculosis in vivo (Usha & Saroja, 2000-2001).
- The antimicrobial activity of Z. Officinale is repored (Limayati et al., 1994)
- Administration of water and alcoholic extracts for 30 days exhibits a significant fall in the level of serum uric acid at all the doses in normal albino rabbits. The alcoholic extract was found to be more effective (Maheshwari et al., 1995)
- Ginger juice produces anti-motion sickness action possibly by central and peripheral anticholinergic and antihistaminic effects (Qian & Liu, 1992).
- In a clinical study on Grahani roga the effect of Z. officinale has been found significant in term of control of number of motions, improvement of body weight, appetite, Hb% etc. (Nanda et al. 1987).
- Bioavailability enhancer property of Z. offiinale is also reported (Zutsi., 1986)
- It has shown marked anti-inflammatory activity in rats which is comparable to prednisolone (Sharma & Singh, 1980). Observation made of 63 patients of RA indicated that Sunthi-guggulu had better effect as compared to other drugs taken for trail. (Kishore et al., 1987).

# III. CONCLUSION

The study of the modern and classical text shows that Sunthi (Zingiber officinale) is an important Ayurvedic medicine. John A. Burns School of Medicine, University of Hawaii Scientist at the Department of Complementary and Alternative Medicine described ginger as herb that helps in digestion and circulation and told it as universal remedies.

Sunthi has Anti – Inflammatory, Antimicrobial, Antioxidant, anticancer properties. It is useful in Amavata, Cough, Cold, Gastrointestinal, Cardiovascular and Sexual disorders. In Ayurveda Sunthi has been described as mahaushadh means a great medicine. In Ayurveda Sunthi has been described as Vishvabhesaj means the universal medicine. The Fresh rhizome is known as Ardraka as it is wet and the dry is known as Sunthi. Ardraka and Sunthi both have same virya and rasa but both have different guna and Vipak. Fresh herbs are most popularly used by the local peoples mix with tea and dried herb as powder as medication or home remedies.

CCRAS has been suggested to take Sunthi powder in Dengue fever on the website in guidelines. It is widely used by people as home remedies adding in tea and using dry powder of the Sunthi in various ailments. It is easily available and not expensive as comparison to other modern medicine. Sunthi has high economical and commercial importance used as a bioavailability enhancer can be explored in various formulations.

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