

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

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

 α -curcumene, β -curcumene, β – 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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IV. REFERENCES

- [1] Kobayashi M, Tshida Y, Shoji N, Okizumi Y, Cardiotonic action of [8] gingerol, an activator of the Ca++ pumping adenosine triphosphatase of sarcoplasmic reticulum in guinea pig atrial muscle. J Pharmacol Exp Ther, 1988; 246: 667.
- [2] Clinical efficacy of a combination of potent GI stimulants consisting of Sunthi and Guduchi showed better results than with conventional drugs like Yogaraja guggulu, Vata gajankusa and Maharasnadi kvatha (Kishore et al., 1980).
- [3] The antimicrobial activity of Z. officinale is repoted (Limyati et al., 1994).
- [4] Tanabe M, Chen YD, Saits K and Kano Y, Cholesterol biosynthesis inhibitory component from Zingiber officinale Roscoe. Chem Pharm Bull, 1993; 41: 710.
- [5] Waggas AM, Neuroprotective evaluation of extract of ginger (Zingiber officinale) root in monosodium glutamate-induced toxicity in different brain areas male albino rats. Pak J Biol Sci, 2009; 12(3): 201-



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International Research Journal of Modernization in Engineering Technology and Science Volume:02/Issue:08/August-2020 Impact Factor- 5.354 www.irjmets.com

212.

- [6] Mustafa T and Srivastava KC, Ginger (Zingiber officinale) in migraine headache. J Ethnopharmacol, 1990; 29: 267.
- [7] Stewart J, Wood MJ, Wood CD and Mims ME, Effects of ginger on motion sickness susceptibility and gastric function. Pharmacology, 1991; 42: 111.
- [8] Ernst E and Pittler MH, Efficacy of gingerfor nausea and vomiting. A systematic review of randomised clinical trials. Br J Anaesth, 2000; 84: 367.
- [9] Ghayur MN, Gilani AH, Ginger lowers blood pressure through blockade of voltage dependent calcium channels. J.Cardiovasc. Pharmacol, 2005; 45: 74–80.
- [10] Ficker C, Smith ML, Akpagana K, Gbeassor M, Zhang J, Durst T, Assabgui R, Arnason JT, Bioassay-guided isolation and identification of antifungal compounds from ginger. Phytother Res, 2003; 17: 897–902.
- [11] Ahmed and Sharma SB.Biochemical studies on combined effects of garlic (Allium sativum Linn) and ginger (Zingiber officinale Rosc) in albino rats, Indian J Exp Biol. 1997; 35(8): 841-3.
- [12] Abdullah et. al., Ginger extract (Zingiberofficinale) triggers apoptosis and G0/G1cells arrest in HCT 116 and HT 29 coloncancer cell lines. African Journal of Biochemistry Research, 2010; 4(4): 134-142.
- [13] Ajith TA, Aswathy MS and Hema U,Protective effect of Zingiber officinale roscoe against anticancer drug doxorubicin-induced acute Nephrotoxicity. Food and chemical toxicology, 2008; 46(9): 3178-3181.
- [14] El-Sharaky AS, Newairy AA, Kamel MA, Eweda SM, Protective effect of ginger extract against bromobenzene-induced hepatotoxicity in male rats. Food Chem Toxicol, 2009; 47(7): 1584-1590.
- [15] Shirin Adel P. R.* and Jamuna Prakash, Chemical composition and antioxidant properties of ginger root (*Zingiber officinale*) Journal of Medicinal Plants Research 18 December, 2010; 4(24): 2674-2679.
- [16] S. banerjee, H. I. Mullick and J. Banerjee International Journal of Pharma and Bio Sciences Zingiber officinale: a natural gold Jan-Mar 2011; 2(1).
- [17] Govindarajan VS, Ginger: Chemistry, technology and quality evaluation. Crit Rev Food Sci Nutr, 1982; 17(1):
- [18] Charaka Samhita, Sutra sthana, (Ch.su.4/6) edited by Shastri Rajeshvardatta, Varanasi: Chaukhambha Bharati Academy; 2005.
- [19] Ibidem, Charaka Samhita, Sutrasthana, Chapter4/11.
- [20] Ibidem, Charaka Samhita, Sutrasthana, Chapter4/12.
- [21] Ibidem, Charaka Samhita, Sutrasthana, Chapter4/29.
- [22] Ibidem, Charaka Samhita, Sutrasthana, Chapter4/45.
- [23] Ibidem, Charaka Samhita, Sutrasthana, Chapter4/166.
- [24] Ibidem, Charaka Samhita, Sutrasthana, Chapter4/296.
- [25] Sushruta Samhita, Sutra sthana, (Su.su.38/22), edited by Vaidya Yadavji Trikamji Acharaya, Narayan Ram Acharaya. Varanasi: Chaukhambha Orientalia; 2007.
- [26] Ibidem, Sushruta Samhita, Sutrasthana (Chapter 46/226-227)
- [27] Bapalal G. Vaidya, Nighantu Adarsha, Adrakadi Varga: 571, Varansi: Chaukhamba Vishvabharti; 2005.
- [28] Kaideva, Kaideva Nighantu, Aushdhi Varga: 1161-1164, Edited by Sharma P.V. & Sharma G.P., Varansi: Chaukhamba Orientalia; 2006.
- [29] Bhavaprakasha, Bhavaprakash Nighantu, Haritakyadi Varga: 60, Edited by Pandey Gyanendra, Varansi: Chaukhamba .2012.
- [30] Ibidem, Bhavaprakash Nighantu, Haritakyadi Varga: 60,
- [31] Thomson M, Al-Qattan KK, Al-Sawan SM, Alnaqeeb MA, Khan I, Ali M, The use of Ginger (Zingiber officinale Rosc.) as a potential anti-inflammatory and antithrombotic agent.
- [32] Altman RD, Marcussen KC, Effects of a ginger extract on knee pain in patients of osteoarthritis. Arthritis Rehum, 2001; 44(11): 2531-2538.
- [33] Nurtjahja-Tjendraputra E, Ammit AJ, Roufogalis BD, Tran VH, Duke CC, Effective anti- platelet and COX-1 enzyme inhibitors from pungent constituents of ginger. Thromb Res, 2003; 111: 259–265.