

Commentary on Therapeutic Role of Ginger (*Zingiber officinale*) as Medicine for the Whole World

Sandeep S*

Parmanand Yoga Heath and Research Centre, India

***Corresponding author:** Sandeep Shah, Parmanand Yoga Heath and Research Centre, India E-mail: drsandeepshah@gmail.com

Commentary

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In Ayurveda, ginger is also referred as “*Vishawa Bhesaj*”, which means, Medicine for the Whole World. It means that ginger can be given to anyone living in this world and it would be suited to all. Usually ayurvedic principles state, since every person is unique in its composition of nature thus there should be always an individualisation of the medicine given. But this very synonym contradicts one of the basic of ayurvedic philosophy.

My aim of this commentary is to analyse the therapeutic use of ginger for the whole world.

Synonyms

Ayurvedic texts have a tradition to tell many more than just the synonyms. Generally synonyms are based on the properties they have.

Historically, ginger was one of the highest traded spices from India to all over the world.

Nagar – best for trading or best for use in cities.

Maha- aushadha – very potent

Vishwa –bhesaj – worlds medicine

Cultivation / Habitat

Ginger is originally a native of Indian subcontinent. It is considered as one of the most important spices for food thus has been traded all over the world. Now-a-days ginger cultivation is done around the globe and very easy to acquire in any country of the world. Some of the country grows with variation in species viz.

Indian / Nepal / Bangladesh / Sri Lanka ginger – (*Zingiber officinale*)

Jamaican ginger – (*Zingiber officinale*)

Chinese ginger – (*Asarum splendens*)

Australian ginger – (*Alpinia caerulea*)

Nigerian ginger – (*Zingiber officinale white and yellow variety*)

Japanese ginger –(*Zingiber mioga*)

Indonesian ginger – (*Alpinia galanga*)

Hawaiian Island - (*Zingiber zerumbet*)

Ayurvedic Properties of Ginger

Rasa – Pungent; *Vipaka* – sweet (dry powder), pungent (fresh ginger); *Virya* – hot; *Guna*- light, oily (dry powder), heavy and sharp (fresh ginger)

Chemical Composition of Ginger

Various active principle ingredients are available in ginger, which includes terpenes and oleo-resin, called as oil of ginger. Ginger also has volatile oils approximately 1% to 3% and non-volatile pungent component known as oleo-resin [1].

The main identified constituents from terpene are sesquiterpene hydrocarbons and phenolic compounds which are gingerol and shogaol. Lipophilic rhizome extracts, yielded potentially active gingerols, which can be converted to shogaols, zingerone, and paradol.

Ginger and its constituents show antioxidant activity and prevent the damage of macromolecules, caused by the free radicals/oxidative stress.

Ginger and its constituents also show a vital role as anti-inflammatory processes.

Ginger also acts as antitumor via modulation of genetic pathways.

Ginger also shows antimicrobial and other biological activities due gingerol and paradol, shogaols and zingerone.

Nutritional Composition of Ginger (per 100g)

Constituent	Value	Constituent	Value
Moisture	15.02 ± 0.04	Ash (g)	3.85 ± 0.61 (4.53)
Protein (g)	5.087 ± 0.09(5.98)	Calcium (mg)	88.4 ± 0.97 (104.02)
Fat (g)	3.72 ± 0.03 (4.37)	Phosphorous (mg)	174 ± 1.2 (204.75)
Insoluble fibre (%)	23.5 ± 0.06 (27.65)	Iron (mg)	8.0 ± 0.2 (9.41)
Soluble fibre (%)	25.5 ± 0.04 (30.0)	Zinc (mg)	0.92 ± 0 (1.08)
Carbohydrate (g)	38.35 ± 0.1	Copper (mg)	0.545 ± 0.002 (0.641)
Vitamin C (mg)	9.33 ± 0.08 (10.97)	Manganese (mg)	9.13 ± 0.01 (10.74)
Total carotenoids (mg)	79 ± 0.2 (9296)	Chromium (µg)	70 ± 0 (83.37)

All value in this table represent the mean ± SD (n = 4). Figures in the parenthesis represent the dry weight values [2].

Appetizer Effects of Ginger

Ginger being pungent in flavour, it helps in cleaning the tongue by increasing the salivary secretions. Cleaning of tongue increases the appetite.

Ginger as Metabolism Increaser

Hot potency of ginger increases the metabolic rate therefore it also helps in increasing digestive capacity.

Ginger as an Aphrodisiac

At the second stage of digestion, that is at 'vipaka' stage the flavour of ginger turns into sweet. This sweet vipaka is responsible to increase 'shukra' dhatu. Shukra dhatu is common for both sexes thus ginger behave as very potent aphrodisiac after completion of digestion.

Constipating Relieving Effect of Ginger

Dry ginger powder is oily by nature. This oiliness lubricates the internal lining of the intestines specially the large intestine thereby facilitating the elimination of farts and faeces. More over due to its pungent flavour it also

helps in breaking down the hard faeces in colon thus making the stools soft to pass out easily.

Cardio Tonic Effects of Ginger / Effect of Ginger on Heart Diseases

Due to its sharp breaking down effects over blockage, it is also used to clear off the blockage present in the blood vessels. The pungent flavour is also responsible to relax the muscle spasm which further helps in relieving the high blood pressure. All these factors help heart to stay healthy.

Pain Killer Effects of Ginger

Ginger is very good in pacifying vata dosha by its oiliness and hot properties. Vata is always the main culprit in any kind of pain according to ayurveda therefore ginger can kill any pain present whether in GIT, angina or any other part of the body (since it can manifest its actions in blood and blood can reach any part of the body.)

Anti-Inflammatory Effect of Ginger

Vata - Kapha pacifying effect of ginger plays important role in anti-inflammatory effect. According to ayurvedic theory, a 'sotha' (inflammation), may be due to either 'avritta' of vata-kapha; or due to obstruction of vata due to kapha.

In any of the situation ginger with its hot, oily, pungent, sharp and breaking down properties relieves the inflammation.

Effects of Ginger on Haemorrhoids

Piles is mainly caused and aggravated by constipation. Ginger being very good in relieving the constipation, the haemorrhoids is also relieved. Further, ginger also reduces the inflammation and pain associated with the haemorrhoids.

Anti-Rheumatic Effect of Ginger

Rheumatism, a condition sometime present in 'Amavata' disease, according to ayurveda, is characterised by presence of 'Ama' (indigested toxins) along with vata dosha in the joints. Ginger with its good digestive effect reduces the 'ama' toxins and ginger with its vata pacifying effect reduces the rheumatism.

Voice Clearing Effects of Ginger

According to ayurveda, the origin of the voice starts from the navel and voice is manifested by vocal cords at

neck. Just as the warm air rises up when it comes in contact with the fire, the air in the body rises up after it comes in contact with the fire at the navel. We have already understood how the hot property of ginger increases fire element at navel.

Neck is Kapha dominant organ, excess of kapha can cause obstruction to voice and thus voice may not be clear. Ginger being very good anti kapha, always keeps voice clear.

Anti-Emetic Effects of Ginger

Vomiting is mainly due to indigestion, hyper acidity or increase of gases. Ginger handles all these conditions. It manages indigestion by increasing metabolism or digestion. Dry ginger powder being dry absorbs the water element of pitta and dry gingers also have madhur vipaka, thus pacifying pitta. Vata is main doer in any action, here represented as gases; fresh ginger reduces vata by its oily and hot properties very effectively.

Effects of Ginger in Asthma / Breathlessness

The pungent flavour helps in relieving the bronchial spasm thereby reducing the breathlessness or asthma.

Anti-Coughing Effect of Ginger

Coughing is due to upward movement of the prana vata. Usually the prana flows along the gravity / downwards. Due to obstruction either in GIT (constipation) or Lungs (Bronchospasm) the normal movement of the prana is hampered. Ginger removes all the blocks in GIT, due to its sharp and breaking down properties and by reducing Bronchospasm by relaxing the bronchial vessels. Since the prana vata normalises in flow the coughing stops.

Effects of Ginger on Filariasis

The main efficacy of ginger is at pelvic area including the navel and lower limbs. Filariasis is characterised by oedema in both legs. Since ginger works well in this part of the body and it is also effective anti-inflammatory, filariasis is reduced.

Ginger relieves Bloating

When gases get stuck in the abdomen the patients feel discomfort due to bloating of the abdomen. Ginger relieves bloating due to numerous reasons, by relieving constipation, efficiency in pelvic area, vata pacifying and also due to sweet vipaka.

Contraindication of Ginger

Even though ginger can reduce morning sickness, it is not advisable for pregnant women due to its sharp, hot and breaking down properties. Another group of people who could be sensitive to ginger are very high pitta people, these people may show signs of pitta increase with use of especially fresh ginger. Dry ginger powder still can be used very cautiously in all of the conditions along with suitable "anupana".

Therapeutic Dose of Ginger

Ginger is very potent even in dry form thus it is used in very less quantity. Even just a few drops are very effective in reducing many ailments not only for adults and old aged but also for children and new-borns.

Dry ginger – 250 mg (adults); 125mg (children and old)

Fresh ginger – 500 mg (adults)

Conclusion

Whenever we say ginger as "Vishwa bhesaj", it means, it is effective in treating most of the world population excluding pregnant women and very sensitive peoples. Moreover, one form of ginger is not useful everywhere, at certain places its dry form is more effective and suitable than the fresh one.

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