**Abstract**

Ardraka or Shunti is popular medicine spread across the tropics. The drug Zingeber officinale in wet form is considered as ardraka and the same in dry form is considered as shunti. Both are effectively used for treatment of Shwasa, Kasa, Agnimandhya etc and used in households as a spice. As both are used in wide spectrum of diseases, it is named as MAHOUSHADI by Acharyas. Shunti is a dried form of Ardraka, which has many similar properties and differs in few properties like Guna, Doshagnata and Karmukata. This paper aims to highlight the properties of Ardraka and Shunti and to discuss the difference between these two drugs therapeutically.

**Keywords**

Ayurveda, Mahoushadhi, Kasa, Shwasa
INTRODUCTION

Ardraka and Shunti (Zingiber officinale) are widely used across the world in foods as a spice and as herbal medicine in Chinese, Ayurvedic and Tibb-Unani practices. A majority of the Ayurvedic Lexicons admire the potential health benefits of these drugs and compared to Mahaaoushadi or Vishvabheshaaja. They have a long history of use in Ayurvedic practice in the conditions like Shwasa, Kasa, Agnimandhya etc in different age groups ie from Bala avastha to Vrudha avastha. This article aims to summarize regarding the Drugs Ardraka and Shunti and their therapeutic applications.

Ardraka is delineated in Agnivesha Grhya sutra. Jaimini Brahmana quotes the name Srngabera. Suntha or Shunti described in the Guhya sutras is considered as a type of Grass but not ginger. Vishabheshaaja term is used for water and rice in Rugveda. The above mentioned statement confirms that Ardraka and shunti are relatively new names not familiar in that ancient times.

Mujumdar is of the opinion that Adara described in Rigveda may be Zingiber officinale.

However all the main texts of Ayurveda described them extensively as it is used in the form of Ahara and Aoushadha Dravya. It is specifically used for digestive disorders and inflammatory conditions. It is observed that shunti is considered as Vibandahhrit (alleviates constipation) but at the same time it is also indicated for atisara. Here it is important to identify that the former indication is for shunti when it is given in the powder form without anupana the later property is exhibited when administered along with takra.

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

In varieties Ardraka Kaiyadeva described Ardra nagaram and Ardrakam(shunti) separately. Their properties are also different. According to him the former is fresh ginger while the later is dry ginger.

Botanical name

Zingiber officinale Roscoe
Zingiber-Derived from shrungabera
Officinale – Sold in shops or used as medicine
Family – Zingiberaceae
Kula – Haridra kula

Synonyms

Aushadha, Mahauashadha, Nagar, Vishva, Vishvabheshaaja, Sringavera, Nagaram, Katubhadram, Uthkatam, Ooshanam, Maha

**Vernacular names**


**Description**

a) Macroscopic

Rhizome, laterally compressed bearing short, flattish, ovate, oblique, branches on upper side each having at its apex a depressed scar, pieces about 5-15 cm long, 1.5-6.5 cm wide (usually 3-4 cm) and 1-1.5 cm thick, externally buff coloured showing longitudinal striations and occasional loose fibres, fracture short, smooth, transverse surface exhibiting narrow cortex (about one-third of radius), a well-marked endodermis and a wide stele showing numerous scattered fibro-vascular bundles and yellow secreting cells, odour agreeable and aromatic, taste, agreeable and pungent.

b) Microscopic

Transverse section of rhizome shows cortex of isodiametric thin-walled parenchyma with scattered vascular strands and numerous isodiametric idioblasts, about 40-80 μ In diameter containing a yellowish to reddish-brown oleo-resin, endodermis slightly thick walled, free from starch immediately inside endodermis a row of nearly continuous collateral bundles usually without fibres stele of thin-walled, parenchyma cells, arranged radially around numerous scattered, collateral vascular bundles, each consisting of a few un lignified, reticulate or spiral vessels upto about 70 μ in diameter, a group of phloem cells, un lignified, thin-walled, septate fibres upto about 30 μ wide and 600 μ long with small
oblique slit, like pits, present, numerous scattered idioblasts, similar those of cortex, and associated with vascular bundles, also present, idioblasts about 8-20 μ wide and up to 130 μ long with dark reddish-brown contents: in single or in axial rows, adjacent to vessels, present, parenchyma of cortex and stele packed with flattened, rectangular, ovate, starch grains, mostly 5-15 μ - 30-60 μ long about 25 μ wide and 7 μ thick, marked by five transverse striations.

**Chemical constituents**

Essential oil(volatile oil 2-3 %), resin, starch, pungent constituents (gingerol and shogaol), resinous matter and starch, Heptane,octane, isovaleraldehyde, nonalol, ethyl pinene, camphene, β-phellandrene, 1,8-cineole, μ-curcumen, α-farnesene, β-farnesene, linalool, β sesquiphellandrene, gingerol, zingerone, shobal, dihydrogingerol, hexahydrocurcumin, geranyl acetate (essential oil from rhizomes), dehyrogingerdione, gingerdione, gingerol, aspartic acid, threonine, serine, glycine, cysteine, valine, isoleucine, leucine, arginine(aerial parts and tuber), Ginger oil contains: Monoterpenes hydrocarbons, serquiterpene hydrocarbons, oxygenated mono and sesquitepene phenyl propanoids.

**Phytochemical composition**

Essential oils, phenolic compounds, flavonoids, carbohydrates, proteins, alkaloids, glycosides, saponins, steroids, terpenoids and tannin as the major phytochemical groups.

Bhava prakasha-also explains about chemical constituents .(Hareetakyadi varga)

- 2-3%-Volatile oil
- Gingerol, Shogal-Responsible for Katu rasa of Dravya
- More resin and starch is present
- Alcohol soluble extracts-4.5%
- Water soluble extracts-10%(In Shunti-2.7%)

**Identity, purity and strength**

Foreign matter not more than 1 per cent
Total Ash not more than 6 per cent
Acid-insoluble ash not more than 1.5 per cent
Alcohol-soluble extractive not less than 3 per cent
- Water-soluble extractive not less than 10 per cent

**Classification**

**Taxonomical classification**

- Kingdom: Plantae
- Class: Monocotyledons
• Series: epigynae
• Family: Scitamineae
• Genus: Zingiber
• Species: officinale

**Commercial Classification**

• Jamaikan
• Indian Cochin, Kalicut, Calcutta
• African
• Chinese
• Japanese

**Series: epigynae**

- **Family:** Scitamineae
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It is a tropical plant and highly adapted to grow in sub-tropical areas also. Ardraka grows well in warm and humid conditions from sea level up to 1500 m above MSL. The plant is cultivated in China, Nepal, US, India, Bangladesh, Taiwan, Jamaica, Nigeria and some other parts of world. India is the biggest producer of Ardraka in the world. In India, it has been cultivated in almost all the states. Some reports suggest that the climate conditions of Orissa, West Bengal, North Eastern states and Kerala are more suitable for the growth of Ardraka in India.

**Rasa panchaka**

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<td>Bhedani, Deepani</td>
<td>Amavatagni, Ruchya, Pachani, Vibandunath, Vrushya, Swarya</td>
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</table>

**Doshgnatha**  
Vata Kaphapaha  
Kapha vatanuth

Karma-Deepani, Bhedini, Ruchyam, jihwa  
kanta vishidhanam, Anulomana, Hrudya,  
Pachana, Ashmadoshahara, Vrishya,  
Swarya, Kasahara, Swasahara, Sulahara,  
Grahi, Ruchya, Hrdya, Vibandhahara,  
Sheeta Prashamana, Shotha Hara,  
Vedana Sthapana, Nadi Uttejaka,  
Rochana, Triptighna, Vatanulomana,  
Shoola Prashamana, Arshoghna, Bhedana  
,Grahi, Hrdya, Svarya, Sleshma Hara,
Swasahara, Vrishya, Uttejaka, Jwaragghna (data base)
Doshagnatha Vata Kaphapaha
Rogagnatha-

**Amayika prayoga**
- Sada pathya in bojanagrae, Lavana ardraka Bhakshanam for agni deepana
- Shwasana, Kasa-Ardraka rasa along with madhu
- Chardi-Ardraka rasa with Palandu rasa
- Jalodara-Ardraka rasa
- Sheetapitta-Ardraka rasa with guda
- Karnashula-Ardraka rasa (warm) karnapurana
- Shira Shula, Danta Shula-Lepa of Shunti Churna
- Excess sweating in Pani Pada Rubbing of Shunti Churna
- Ama Dosha (Ama atisara) - Mix with Ghruta-make Kalka-cover with Patra and Putapaka is given. Intake along with Mishri in early morning.
- Jeerna Sandhivata-Panta prepared out of Shunti (Rathri sevana)
- Arsha, Ajeerna, Atisara, Gulma-Shunti + Guda

**Ayogya**
- Purana Hrudroga
- Purana Vrukka roga

**Matra**
Ardraka-2.5-10ml
Shunti-250-1000mg

**DISCUSSION**
Shunti is a dried form of Ardraka, which has many similar properties and differs in Guna, Doshagnata and Karma. Shunti is
prepared by drying Ardraka (Pealed). Dravya guna vijna explains that Shunti and Ardraka are different Species. And Kaiyadeva mentions Ardra nagaram and Ardraka Separately, among these Shunti is prepared from Ardra nagaram.

Peyu (Zingiber cassumunar) is also one more variety of Ardra ka identified by Nadkarani and introduced by Narahari, which is also called as Vanardraka. The properties are similar to Ardraka except rasa ie Katu and Amla.

Dhanvantara nighantu describes Shunti as Vrushya and has influence on Pandu. Whereas in Raja nighantu, Shunti is not mentioned as Vrushya.

In the fresh ginger rhizome, the gingerols were identified as the major active components. The pungency of ginger is due to gingerols and shogoals. The powdered rhizome contains 3-6% fatty oil, 9% protein, 60-70% carbohydrates, 3-8% crude fiber, about 8% ash, 9-12% water and 2-3% volatile oil.  

Many research works have been evident for further understanding of its pharmaceutical action such as, carminative, antipyretic, anti colic, and for the treatment of waist pain, rheumatism, cough, corhyza and bronchitis. It is very useful in the treatment of gastrointestinal disorders particularly dyspepsia etc.

- Anti-inflammatoiy and Anti rheumatism

One of the mechanisms by which ginger exerts its ameliorative effects could be related to inhibition of prostaglandin and leukotriene biosynthesis

- Blood clotting activity

Ardraka administered orally caused significant changes in the serum PGE2 significantly. TXB2 was reduced when examined in rats (500mg/kg) which shows that it has anti thrombic action.

- Effects on Blood pressure

It has been found that the dose (0.3-3mg/kg) of ginger showed fall of arterial blood pressure in rats. And in guinea pigs it resulted as a cardio depressent agent.

- Anti cancerous

In-vitro studies has proved that aptosis of A549 cells were carried out by ginger extract.

- Anti osteoarthriris

Ardraka extracts aes showing moderate effect in osteoarthritis.

- Anti-oxidant action
The antioxidant properties of [6]-gingerol which is very effective agent for anticipation of UV-induced skin disorders, has been studied both in-vitro & in-vivo. It also has a protective role to toxicity and lethality against some agent like carbon-tetra chloride.

- **Hepatoprotective Activity**
  Ginger acts as best hepato protective drug especially bromobenzene induced hepatic disorders

- **Action on lungs**
  A Comparative Study was conducted in rats to know the drug penetration with using ginger and without using ginger as adjuvant. Ginger enhanced the penetration of ciprofloxacin and Isoniazid into the lung tissues; however, their rates of penetration were delayed.

In Ayurvedic practice it has been used for different purposes such as Rasa dravyas like gairika, manashila Shodhana, Marana etc. And it is used as Anupana where the drug should reach Kapha vata Sthana.

Eventhough Ardraka is commonly used in the form of swarasa, a study has been done in the form Arka used as nebulizer in Tamakashwasa. It showed mild to moderate condition is of utmost benefit to the patient, as it reduces the chest tightness along with good expectoration and a reduction the intensity of ronchi.

**CONCLUSION**

Ardraka is having Katu rasa (A.H-Tikta, Madhura), Teekshna, Ruksha Guna, Ushna veerya and Madhura Vipaka, thus pacifies Vata, Kapha dosha without aggravating Pitta. Shunti is having Katu rasa, Snigdha guna, Ushna veerya and madhura vipaka, pacifies kapha Vata Doshas but aggravates pitta dosha. Even though Shunti is dried form of Ardraka, due to Samskara their property differs. To conclude, Shunti cannot be used in Ushna kala, Pitta udrikta conditions where Daha, Chosha lakshanas are noticed, Whereas Ardraka can be used. These are two drugs which are used widely in many formulations such as Trikatu, Soubhagya Shunti, Ardraka Ghrutam, Avipathikara Churna etc due to its Agni deepana property and easy availability. It can cure almost all diseases (Rogaha Sarvebhyo Mandagnou).

As the name indicates it acts as Vishvabhehsaja in the stream of Ayurveda and allied sciences, which helps promote Universal health.
REFERENCES


