



A REVIEW ON ARDRAKA KALPA

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ABSTRACT

Ardraka (*Zingiber officinale*) is a drug used in many formulations of Ayurveda. It is used as a primary preparation and is also used as an ingredient in many secondary preparations of Ayurveda pharmaceuticals. It is commonly used for treatment of swasa (dyspnoea), kasa (cough), pratishyaya. Recent researches show many activities like anti-inflammatory, anti-rheumatism, Blood clotting activity, anti-cancerous, anti-osteoarthritis, anti-oxidant action, hepatoprotective activity, enhanced penetration, anti-diabetic and hypolipidemic properties. A literary review carried on the treatise of Ayurveda pharmaceuticals has put light that many varied formulations of ardraka (*Zingiber officinale*) are found like khanda (granule) kalpa (formulation), avaleha (confection), etc. It is also used by different means of administration through oral route, nasal route, etc. Thus, it is a drug that can be used in variety of kalpa (formulation) in varied dosage forms and used in broad spectrum of diseases.

Keywords: Ardraka, khanda kalpana, kalpa, shunti, *Zingiber officinale*

INTRODUCTION

Many herbs like ardraka and shunti (*Zingiber officinale*) mentioned in ayurvedic classics are commonly used as spice in food and as medicine. Health benefits of ardraka (*Zingiber officinale*) was known to ayurvedic acharya that's why it is called as mahaaoushadi or vishwabheshaja [1]. Since many years ardraka (*Zingiber officinale*) is used as a single drug and as ingredient in formulations for treatment of swasa, kasa (cough), agnimandhya, shotha, murcha (unconsciousness), etc. In all stages of age. Usage of adraka (*Zingiber officinale*) through oral route of drug is common but in parenteral route it is rarely used. One can get references of ardraka and shunti (*Zingiber officinale*) in agniveshagrahya sutra, jaimini brahmana, rigveda. Recent all major texts also mentioned the usage of ardraka and shunti as bheshaja (medicine) and ahara (food). It is one of the main drugs used for treatment of vibhanda (constipation), swasa (dyspnoea), kasa (cough), jwara (fever), pinasa (rhinitis), amavata (rheumatism).

Researches proved many activities of ardraka (*Zingiber officinale*) like anti-inflammatory and anti-rheumatism [2], blood clotting activity [3], effect on blood pressure [4, 5], anti-cancerous [6], anti-osteoarthritis [7], anti-oxidant action [8], hepatoprotective

activity [9], enhanced penetration of ciprofloxacin and isoniazid [10], anti-diabetic and hypolipidaemic properties [11].

The ardraka (*Zingiber officinale*) rhizome contains 1–4% essential oil and an oleoresin which varies according to geographical origin. The chief constituent sesquiterpene hydrocarbons (responsible for the aroma) seem to remain constant which compounds include zingiberene, ar-curcumene, sesquiphellandrene and bisabolene [12].

In most of the ayurvedic preparations, ardraka or shunti (*Zingiber officinale*) are used as a single drug or in combination with other herbal or mineral drugs. It is one of the ingredients, in a few formulations like trikatu. Ardraka and shunti (*Zingiber officinale*) are been used in different dosage forms like swarasa (juice), khanda (granules) kalpana (formulation), avaleha (confection) kalpana (formulation).

Many preparations are mentioned in Ayurveda like avaleha (confection) kalpana (formulation), khanda (granule) kalpana (formulation), sarkara (sugar) kalpana (formulation), asava and arista (fermentation preparation) to make the drugs more palatable and also to increase the shelf life. Among the different dosage forms mentioned in Ayurveda, avaleha (confection) and

khanda (granule) kalpana (formulation) are preferable because of palatability and self-life.

Khanda kalpana (granule formulation) will be prepared using sugar or jaggery as main

ingredient. Formulation is usually prepared same like avaleha kalpana (confection) but continued for 3 to 4 thread consistency (Table 1).

Table 1: Ardraka khanda [13]

Sl.No	Name	Latin name	Quantity
1.	Ardraka	<i>Zingiber officinale</i> Rosc	2 ser (2 lt)
2.	Goghrita	Cow's ghee	1 ser (1 lt)
3.	Godugdha	Cow's milk	4 ser (4 lt)
4.	Sarkara	Sugar	1 ser (1 lt)
5.	Pippali	<i>Piper longum</i> Linn.	5 tola (60g)
6.	Pippalimula	Root of <i>Piper longum</i> Linn.	5 tola (60g)
7.	Maricha	<i>Piper nigrum</i> Linn	5 tola (60g)
8.	Shunti	<i>Zingiber officinale</i> Rosc.	5 tola(60g)
9.	Chitraka	<i>Plumbago zeylanica</i> Linn.	5 tola (60g)
10.	Vidanga	<i>Embeliaribes</i> Burm. f.	5 tola (60g)
11.	Musta	<i>Cyperusrotundus</i> Linn	5 tola (60g)
12.	Nagakeshara	<i>Mesuaferrea</i> Linn.	5 tola (60g)
13.	Twak	<i>Cinnamomumzeylanicum</i> Blume	5 tola (60g)
14.	Ela	<i>Elettariacardamomum</i> Maton.	5 tola (60g)
15.	Tejapatra	<i>Cinnamomumtamala</i> Nees&Eberm	5 tola(60g)
16.	Kachora	<i>Curcuma zedoaria</i> Rosc.	5 tola (60g)

Method of preparation

It is a general method of paka preparation where the liquid media are heated with sugar to get the syrup of 3-4 thread consistency, then the pulp of the ingredient (ardraka pulp) is fried with ghee and added to the sugar syrup. Later, the prakshepakadravya (projectile material) are added and mixed well.

Indication and dose

60 g in morning. It is indicated in sitapitta (urticaria), udarda (Chronic idiopathic urticaria), rajayakshma (tuberculosis), raktapitta (bleeding disorder), kasa (cough), swasa (dyspnoea), aruchi(anorexia), vatagulma (tumor), udavarta (belching),

shotha (inflammation), kandu (itching), krimi (worm), deepana (digestive), udara (ascites), bala (strength)veerya (potency) vardhaka (increases), shareerapushtikara (nutritious) (Table 2).

Dose- 2 tola (48g)

Indications- Swasa(dyspnoea), kasa (cough), smriti bramsa (impairment of memory), swarabhanga (hoarseness of voice), aruchi (anorexia), hridroga (heart ailment), grahani (sprue syndrome), gulma (tumor), shula (pain), shota (inflammation). It is said to be used in sita kala (cold season) (Table 3).

Dose- 12g

Indications- aruchi (anorexia), kshaya (deficiency), kamala (jaundice), pandu

(anemia), shotha (inflammation), kasa (cough), swasa (dyspnoea), admana (flatulence), udara (ascites), gulma (tumor), arsha (hemorrhoida), pleeha roga (spleen), shula (pain) (Table 4).

Dose- 12g

Indications- Kasa (cough), arsha (hemorrhoids), jwara (fever), pinasa (rhinitis), shotha (inflammation), gulma (tumor), kshaya (deficiency).

Table 2: Ardraka paka [14]

Sl.No	Name	Latin name	Quantity
1.	Ardraka	<i>Zingiber officinale</i> Rosc	
2.	Goghrita	Ghee	
3.	Guda	jaggery	
4.	Shunti	<i>Zingiber officinale</i> Rosc.	
5.	Jeeraka	<i>Cuminumcyminum</i>	
6.	Maricha	<i>Piper nigrum</i> Linn	
7.	Nagakesara	<i>Mesuaferrea</i> Linn.	
8.	Jatipatra	<i>Myristicafragrans</i> HOUTT.	
9.	Ela	<i>Elettariacardamomum</i> Maton.	
10.	Twak	<i>Cinnamomumzeylanicum</i> Blume	
11.	Tejapatra	<i>Cinnamomumtamala</i> Nees&Eberm	
12.	Pippali	<i>Piper longum</i> Linn.	
13.	Dhanyaka	<i>Coriandrum sativum</i>	
14.	Krishna jeeraka	<i>Carumcarvi</i> (Linn.)	
15.	Pippalimula	<i>Piper longum</i> Linn.	
16.	Vidanga	<i>Embeliaribes</i> Burm. f.	

Table 3: Ardrakamatulunga avaleha [15]

Sl.No	Ingredient	Latin name	Quantity
1.	Ardrakaswarasa	<i>Zingiber officinale</i> Rosc	2 ser (2lt)
2.	Guda	Jaggery	40 tola (480g)
3.	Matulungaswarasa	<i>Citrus medica</i>	40 tola (480g)
4.	Twak	<i>Cinnamomumzeylanicum</i> Blume	1 karsa (12g)
5.	Ela	<i>Elettariacardamomum</i> Maton.	1 karsa (12g)
6.	Tejapatra	<i>Cinnamomumtamala</i> Nees&Eberm	1 karsa (12g)
7.	Shunti	<i>Zingiber officinale</i> Rosc.	1 karsa (12g)
8.	Maricha	<i>Piper nigrum</i> Linn	1 karsa (12g)
9.	Pippali	<i>Piper longum</i> Linn.	1 karsa (12g)
10.	Haritaki	<i>Terminalia chebula</i>	1 karsa (12g)
11.	Amalaki	<i>Phyllanthus emblica</i>	1 karsa (12g)
12.	Vibitaki	<i>Terminalia bellirica</i>	1 karsa (12g)
13.	Ayasa (dhamaasa)	<i>Fagoniaarabica</i>	1 karsa (12g)
14.	Chitraka	<i>Plumbago zeylanica</i> Linn.	1 karsa (12g)
15.	Pippalimula	<i>Piper longum</i> Linn.	1 karsa (12g)
16.	Dhanyaka	<i>Coriandrum sativum</i>	1 karsa (12g)
17.	Sweta jeeraka	<i>Cuminumcyminum</i>	1 karsa (12g)
18.	Krishna jeeraka	<i>Carumcarvi</i> (Linn.)	1 karsa (12g)

Table 4: Ardraka avaleha [16]

Sl.No	Ingredient	Latin name	Quantity
1.	Ardraka	<i>Zingiber officinale</i> Rosc	1 ser (1lt)
2.	Guda	Jaggery	250 tola
3.	Kustumbari	<i>Coriandrum sativum</i> L	10 tola (120g)
4.	Ajamoda	<i>Trachyspermumammi</i>	10 tola (120g)
5.	Lohabhasma	Incinerated iron	10 tola (120g)
6.	Jeeraka	<i>Cuminumcyminum</i>	10 tola (120g)
7.	Twak	<i>Cinnamomumzeylanicum</i> Blume	10 tola (120g)
8.	Ela	<i>Elettariacardamomum</i> Maton.	10 tola (120g)
9.	Tejapatra	<i>Cinnamomumtamala</i> Nees&Eberm	10 tola (120g)
10.	Musta	<i>Cyperusrotundus</i> Linn	10 tola (120g)

Ardrakadinasyam [17]

Application of ardraka (*Zingiber officinale* Rosc) swarasa (juice) along with saindhava lavana (rock salt) and trikatu curna in mouth or nasya (intranasal drug administration) with maricha (*Piper nigrum* Linn) cures murcharoga (unconsciousness).

Ardrakadinasyam [18]

Ardraka (*Zingiber officinale* Rosc) and gairika (red ochre) or dhatakpushpa and yastimadhu churna (*Glycyrrhiza Glabra* powder) with streedugdha (breast milk) if taken as nasya (intranasal drug administration) cures nakasira (bleeding)

Ardraka swarasa [19]

Administration of ardraka (*Zingiber officinale*) swarasa(juice) with purana guda (jaggery) and ajaksheera (goat's milk) cures all types of shotha (inflammation)

Ardrakadi kalka [20]

Drinking of ardraka (*Zingiber officinale*) and yavaksharakalka along with ushna jala (warm water) cures roga(disease) originated from drinking water of many countries.

Ardrakadi kavalagraha [21]

Kavalagraha (gargling) with ardraka (*Zingiber officinale*) swarasa with saindhava lavana (rock salt) and trikatu curna should be done and repeatedly, it will remove the kapha deposited in the hridaya (heart), kloma (lungs), manyaparshwa, muka (oral cavity),

khanta (throat) and produces laghuta (lightness). This also cures parva bheda, jwara (fever), murcha (unconsciousness), nidra (sleep disorders), swasa (dyspnoea), khantamukhanetraroga (diseases of the throat, mouth and eyes), guruta (heaviness), jadyata (stiffness), and aruchi (anorexia). It should be done 2 to 4 times considering the bala (strength) and it is best medicine for sannipata.

Ardrakadi swarasa [22]

Tridoshaja shotha (inflammation) should be treated with ardraka (*Zingiber officinale*) swarasa and shunti (*Zingiber officinale*) kwatha or triphala kwatha with addition of shilajatu (black bitumen). After digestion of it dugdhayuktaaahara (milk-based food) is said to be taken.

DISCUSSION

A literary review on the formulations of ardraka (*Zingiber officinale*) suggests that these are commonly used in conditions of swasa (dyspnoea), kasa (cough), pinasa (rhinitis), shotha (inflammation), gulma (tumor), kshaya (deficiency) and shula (pain). The prakshepaka dravya used in the formulations will have anti-oxidant property and will potentiate the action of the formulation as well.

The clinical data suggests that ginger is used as a prophylaxis in nausea and

vomiting associated with motion sickness, postoperative nausea, pernicious vomiting in pregnancy, and seasickness. In pharmacopoeias and in traditional systems of medicine also it is used in the treatment of dyspepsia, flatulence, colic, vomiting, diarrhoea, spasms, and other stomach complaints. Powdered ginger is further employed in the treatment of colds and flu, to stimulate the appetite, as a narcotic antagonist, and as an anti-inflammatory agent in the treatment of migraine headache and rheumatic and muscular disorders [23].

Ardraka (*Zingiber officinale*) is also used in other routes of drug administration like nasya (intranasal drug administration) in emergency conditions like murcha (unconsciousness), along with other tikshna drugs like trikatu. References of usage of ardraka (*Zingiber officinale*) as application in the oral cavity, use as kavalagraha (gargle), etc. is also found.

CONCLUSION

Ardraka (*Zingiber officinale*) is a very common ingredient used in various formulations. Yoga or secondary formulations of ardraka (*Zingiber officinale*) as a prime ingredient are enlisted in the treatise of ayurveda pharmaceuticals like ardraka paka, ardraka khanda, etc. Few of the indications of these are common that is due

the common main ingredient i.e., ardraka (*Zingiber officinale*) and common prakshepakadravya. Ardraka (*Zingiber officinale*) is being used in different dosage forms from swarasa to avaleha (confection) kalpana (formulation) i.e., from primary preparations to secondary preparations. It is not only used in conditions like swasa, kasa (cough) jwara (fever), etc. But also used in emergency conditions like murcha (unconsciousness) through other routes of drug administration like nasya (intranasal drug administration) and kavalagraha (gargle).

A lot of scope for research on these formulations in various ailments is open as these formulations are simple with easily available ingredients.

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