

CRITICAL REVIEW ON AMLA VARGA MENTIONED IN RASA GRANTHAS

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ABSTRACT

Amlavarga has been mentioned in the classical texts of *Rasashastra*. These groups of sour taste drugs are very important in the preparation of medicines from minerals and metals. These drugs are used in the process of purification and incineration of these metals and minerals. This group of drugs contains citrus fruits, leaves of sour taste as well as fermented sour gruel. Normally these drugs are also used for cleansing of rusted/coated articles; they may be able to chelate the metal ions on the surface for speedy removal.

The use of these drugs in preparation of medicines is very significant. The *Ratna*, *Uparatna varga* and *Sudha varga* drugs are purified by them. These drugs have organic acids like citric acid, ascorbic acid, tartaric acid, acetic acid and many more. They also contain ionic minerals which may be present as trace elements in the end product. Studies have proved their antioxidant, antimicrobial, anti-inflammatory and many more properties. The acids also act on the raw materials and help in reduction of their particle size in the end product. The reduced particle size may also increase the rate of absorption of the drug.

Keywords- *Amlavarga*, organic acids, processing, antioxidant.

INTRODUCTION

Amla varga has been mentioned in the Paribhasha of many classical *Rasagranthas*. The objective of the present article is to highlight the contents of the sour taste drugs and their probable action on the metals and minerals. The other objective is to compare the chemical constituents and its advantages over each other based on the content.

The *amla varga* consists of *Amlavetas*, *Jambira*, *Nimbuka*, *Bijpuraka*, *Changeri*, *Chukra*, *Chanakamla*, and many other drugs. These are mentioned in details ahead.

MATERIALS AND METHODS

Amlavetas (Garcinia indica)- The fruits of *Garcinia indica* contains Garcinol, a polyisoprenylated benzophenone derivative. Its antioxidative activity, chelating activity,

free radical scavenging activity, and anti-glycation activity are proved¹. Garcinol is also proved to have anti-fungal activity as it prevents and inhibits growth of aflatoxins². Hydroxyacetic acid is present in the rind of fruits³.

These proven activities certainly help us understand its use in many preparations like *Kharjuradi mantha*, etc. It is also commonly used in food preparations all over India. It is also used in the processing, trituration of many of the minerals.

Jambir nimbu (Citrus jambiri)⁴-Many citrus varieties of fruits are mentioned in the classical texts of Ayurveda. These fruits (rough lemon) are mostly low in soluble solids, acid, and ascorbic acid content i.e. it has high percentage of fibers⁵. Its alcoholic

extract is found to have Polymethoxyflavones, Flavonoid, glycosides and Limonoids, due to which it displays antioxidant and anti-inflammatory properties.⁶

Jambiri nimbu has been in use for *shodhana*, *marana*, *bhavana* and also as *anupana* for many Ayurvedic preparations.

Nimbuka (*Citrus aurantifolia*)-It mainly contains carbohydrates, fibre, and proteins. It is also rich in Vitamin C, beta –carotene, organic acids like citric, malic, oxalic, quinic, malonic. It contains essential oils, flavonoids and coumarins⁷. Its anti-platelet aggregation, immunomodulatory, cytotoxic, antityrosinase, antimicrobial and antifungal properties have been proved.⁸

Nimbu swarasa is used for many processes in *Rasashastra*. It is used majorly for *shodhana*, its higher concentration of acidity certainly helps to remove impurities from the surface of the metals by chelating. It is also used to purify the *dravyas* of *Sudha Varga*.

Bijapuraka/Matulunga (*Citrus medica*)-It contains ascorbic acid, sulphuric acid, Vitamins B and C, and ionic minerals⁹. It has proven anti-microbial and anti-inflammatory activity. It is mainly used in Ayurveda for processing and purifying various minerals.

Changeri (*Oxalis corniculata*)-Changeri leaves and stem contain tartaric, citric acid and vitamin C which gives it sour taste. These leaves also contain vitamin C (125mg/100 g), carotene (3.6mg/100 g) and calcium (5.6% of dry material) and high content of oxalates (12% of dry material).¹⁰

It is used in *shodhana* and many Ayurvedic preparations like *Changeri ghrita*.

Chukra (*Rumex acetosa*)-It mainly contains oxalic acid. It has anti-inflammatory, antiviral and antiproliferative (tumor arresting properties).¹¹

Chanakamla (*Cicer arietinum*)-The leaves mainly contains ascorbic acid, and minerals like ionisable iron, copper manganese and zinc.¹² It is mainly used for purification processes.

Kaanji(Sour gruel)-The gruel is prepared by acidic fermentation using different ingredients like cereals, *rajika*, *saindhava*, *kulatha*, *shunthi*, *jeeraka*, etc. This gruel mostly contains acetic acid. It is commonly used in *samanya shodhana* of *dhatus*.

DISCUSSION

The organic acids present in the *amla varga* are ascorbic acid, tartaric acid, oxalic acid, citric acid, etc. These acids are used in the priming of the metals and mineral by processing them with it (*shodhana* /*marana*/*nirvapana*/*dhalana*/*bhavana*).

Studies have proved that these acids possess antibacterial, antifungal, antioxidant and many more properties. These organic acids in the *amla varga* cleanses (purifies) the respective metal/mineral and also introduces trace elements in them so that the end product formed is completely bio-assimilable. These acids may also introduce more brittle property while processing so that the calx (*Bhasma*) of the metal/mineral forms at a faster rate. Studies have also proven that organic acids help to restore gut flora when administered with antibiotics. It may also be exhibiting the same properties in Ayurvedic medicines.

CONCLUSION

The *amla varga* is an important entity of *Rasashastra*. Nearly all metals /minerals

have to be processed with acidic media. The action of the organic acids on the metals/minerals could be understood with in depth analysis of them at various levels. The present article is an initiative in that direction.

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