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A Critical Review on *Charakokta Hrudya Deshemani* w.s.r to *Amla Rasa*

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ABSTRACT

BACKGROUND:

Hrudaya being a supreme vital organ, improving its functional quality is very much essential for healthy as well as diseased individuals. Contemplating the relation between *Rasa* and *Hrudaya* it is mentioned as '*Amlam Hrudyanam Agryam*' in the context of *Agrya Dravya in Charaka Samhita* which means *Amla Rasa* is the best *Hrudya* among all in nature than any other *Rasa*, and in *Shadvirechanashatashritiya Adhyaya*, *Hrudya Deshemani* is found mentioned which includes a group of ten *Dravyas* which are *Amla Rasa Pradhana*. *Agrya Dravyas* are explained as guidance for the treatment of various diseases. Hence in *Hrudroga* where the organ heart is primarily involved, *Amla Rasa* can have a protective effect.

METHODS:

Bhratrayis were reviewed for the references on different aspects of *Hrudya*, *Hrudaya*, *Hrudroga* and *Amla Rasa*. The reviewed literature was then critically analysed.

RESULTS AND INTERPRETATION:

Thorough analysis of literature revealed: -

1. The proper role of *Dosha* in the process of blood circulation and functioning of *Hrudaya*.
2. Term '*Hrudya*' has both physiological as well the psychological aspects and even *Adravabhuta* modalities like *Gandha*, *Roopa*, *Rasa* also attribute as being *Hrudya*, but as far as *Hrudroga* is concerned, primarily the organ *Hrudaya* is involved and secondarily its *Ashrayi Manas* will also be involved.
3. *Amla Rasa* performs *Vatanulomana*, *Deepana*, *Srotoshodhana* properties and acts *Hrudya* (cardio tonic).

CONCLUSION:

Compilation and re-evaluation of various principles related with *Amla Rasa* and *Hrudaya* were analysed, discussion was made for the better understanding of *Hrudya* effect of *Amla Rasa* and thereby re-establishing the possibilities behind the quotations available in *Samhita* on the concerned topic.

Key Words *Hrudya Deshemani*, *Amla Rasa*, *Agrya Dravya*

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INTRODUCTION *Bheshaja Chatushka* of *Charaka Samhita* provides comprehensive

information about herbs and their classification on the basis of their specific activity. *Hrudya Gana Dravya* mentioned in *Charaka Samhita* are

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all *Amla Rasa Pradhana* in nature and *Prabhava* of *Amla Rasa* is also considered as *Hrudya* (cardio protective). *Charaka* explains *Hrudaya* as the *Chetanaadhishtana Avayava*¹ and *Sushruta* mention *Hrudaya* as the *Chetana Sthana*². *Chetana* is perceptible through the automatic and self-controlled pulsation of heart. Thus, *Hrudaya* if injured or disordered results in the stopping of “*Chetanaanuvritti*”, resulting in death. *Hrudya Mahakashaya* is group of ten drugs which acts as cardiotoxic namely, *Amra*, *Amrataka*, *Lakucha*, *Karamarda*, *Vrkshamla*, *Amlavetasa*, *Kuvala*, *Badara*, *Dadima* and *Matulunga*³. Cardiotoxic drugs have the ability to increase the contracting mechanism within the heart and thereby causing more blood to be pumped throughout the circulatory system.

MATERIALS AND METHODS:

Materials related to *Hrudya*, *Hrudaya*, *Hrudroga*, *Amla Rasa* and other relevant topics have been collected. Mainly *Brihatrayis* and its available commentaries were referred. Modern texts, various research articles and websites were referred to collect information on the concerned topic.

LITERARY REVIEW:

Review on *Amla Rasa*:

Drug action basically depends on the *Rasa Panchaka*⁴

*Mahabhuta - Pruthvi and Agni*⁵

*Ritu - Varsha*⁶

*Guna - Laghu, Snigdha*⁷

*Virya - Ushna*⁸

*Vipaka - Amla*⁹

*Prabhava - Hrudya*¹⁰

*Dosha - Vata shamaka*¹¹, *Pitta vardhaka*¹², *Kapha vardhaka*¹³

*Dhatu - Rakta vardhaka*¹⁴

*Mala - Srishta Vit-Mootra-Maruta*¹⁵

The action of *Rasa* on *Dosha* is indispensable because *Guna* resides in *Rasa* which are favourable or unfavourable for the *Dosha* and will be applicable in treatment using different *Dravya*. Just like all the substances in the universe are composed with *Panchamahabhuta*, similarly all *Dravya* have the presence of all six *Rasa*, but according to the predominance of different *Rasa* the *Rasa Pradhanyatha* is concluded. *Amla rasa* pacifies *Vata* due to *Snigdha* and *Ushna Guna*, increases *Pitta* due to *Ushna Guna*. It dissolves (*Vilayana*) and increases the quantity of *Kapha* due to *Snigdha* in association with *Ushna Guna*.

Amla Rasa stimulates *Agni*, stabilizes sense organs, awakens the mind, firms the sense organ, increases strength, causes normal movement of *Vata*, nourishes the heart, increases secretions in the mouth, propels, moistens and digests food, gives satisfaction.

On the basis of *Ushnaguna - Amla rasa* is *Madhyama*.¹⁶

On the basis of *Snigdha-guna - Amla rasa* is *Madhyama*.

On the basis of *Laghuguna - Amla rasa* is *Avara*.

DISCUSSION

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Discussion on *Hrudaya*:

Hrudaya is one among the *Trimarmas*, which is the seat of many vital activities.

Vyana Vayu which is located in *Hrudaya* stimulates the process of circulation. *Rasa Dhatu* is the first *Dhatu* or tissue formed from the digested food. *Vyana Vata* transfers the nutrients into the circulatory system and distributes it to all parts of the body through blood vessels¹⁷. *Vyana* also helps in rhythmic contractions and expansion of *Hrudaya* needed to pump blood consisting of nutrients and oxygen to all parts of the body. This action is supported by *Udana Vayu* which enables smooth functioning of organs in *Uras* region and *Avalambaka Kapha* which supports the circulatory system by providing good lubrication of the blood vessels by functions of *Ap- Bhuta* and by enabling the filling of heart without disturbing its emptying. *Sadhaka Pitta* which is located in *Hrudaya* governs the function like *Budhi*, *Medha*, *Abhimana* etc. It also represents enzymes in the heart like SGOT, aldose etc. According to *Sharangadhara*, the *Rasa* being propelled and carried by action of *Samana Vata*, reaches the heart. (SAS. 6/9).

Discussion on term *Hrudya*:

Considering the various definitions on *Hrudya* available in different contexts mentioned by Acharyas and commentators, it shows that the term *Hrudya* has role in two aspects i.e.

*Shareerika*¹⁸/physiological as well the *Mansasika*¹⁹/psychological. *Charaka Acharya* has mentioned ten drugs as *Hrudya Dashemani*, where these drugs, either all the ten or single drug from the group, have been stated to act on *Hrudaya*. According to various references even *Adravyabhuta* modalities like *Ganda*, *Roopa*, *Rasa* etc are also attributed as being *Hrudya*. For example: *Ahrudya Gandha* can initiate *Vamana*. In the context of *Agrya Dravya*, it is mentioned “*Amlam Hrudyanam*”²⁰, and in the same context it is said that all these *Agrya Dravyas* and regimens are explained as guidance for the treatment of various diseases²¹. As far as *Hrudroga* is concerned, primarily the organ *Hrudaya* is involved and secondarily its *Ashrayi Manas* will also be involved.

Discussion on *Hrudroga*:

In *Samhita*, five types of *Hrudrogas* are mentioned. *Acharya Charaka* has not mentioned about the *Dushya* involved in *Hrudroga* whereas in *Sushruta* while explaining the *Samprapthi*, *Rasa Dhatu* becoming *Dooshita* by vitiated *Dosha* is mentioned²². *Rasavaha Srotas* and *Hrudaya* are closely associated as its *Moolasthan* is *Hrudaya*. *Rasavaha Srotas* is responsible for circulation of *Rasa Dhatu* and nourishment to all other body constituents. Due to *Nidana Sevana* (both *Shareerika* and *Manasika*), any of the *Dosha* or all three together can get vitiated causing *Rasavaha Srotodushti* and more specifically in its *Moola* that is *Hrudaya* which leads to different *Doshaja Hrudroga*. Considering *Rasa* as *Dushya* for *Hrudroga*, *Rasa*

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*vahaSrotoDushtikaraNidanas*²³ must have a role in the *Samprapti*. But, *Vataja* and *Pittaja Hrudroga Nidanas* do not match with *Rasa Dushtikara Nidanas* except for the *Manasikanidanas* like “*Chintyanam cha Atichintanat*”. Where as *Kaphaja Hrudroga Nidanas* are similar to *Rasavaha Dushtikara Nidanas*. This is because of the similarity between *Rasa* and *Kapha*. Therefore, the chances of *Kapha* vitiating *Rasa Dathu* is more compared to *Vata* and *Pitta*. By this, it could be said that, in case of *Kaphaja Hrudroga, Rasa Dusti* can be maximum due to *Samana Dosha* and *Dushya*.

Discussion on *Amla Rasa*:

Amla Rasa Karma on Dosha:

Amla Rasa is composed of *Pruthvi* and *TejaMahabhutas*. Because of *ParthivaMahabhuta*, it has qualities like *Gurutha* which increases *KaphaDosha*. Because of its *TejaMahabhuta*, it increases *Pitta Dosha*. As it does not contain any *Vayu* element, and because of *Ushnatan* in *Teja* and *Guruta* of *Prutvi* which are against *Vata* qualities, *Amla Rasa* pacifies *VataDosha*.

Amla Rasa Karma on Dhatu:

Amla Rasa promotes digestion and formation of *Ahara Rasa* properly. Thus it increases *Rasa Dathu*. The very basics of *Amla Rasa* and *RaktaDhatu* expose some *Samanyata* between them. Both has the supremacy of *Agni Mahabhuta*, they have uniqueness in *Gunas* like *Snigdha* and *Laghu*. Both *Amla Rasa* and *Raktha Dhatu*

are concurrent to *Pitta Dosha*. *Amla* increases *Prakrita Pitta*. As in *Samanya Visheshha Siddhanta*, it increases *Rakta* in conditions of *RakthaKshaya*. *AmlaPreeti* is one of the salient features of *Rakta Kshaya*²⁴. *Dalhana* commenting on this elaborates its reason, he explains that *RakthaKshaya* sequentially results in the *Vruddhi* of *Vata* and to pacify this *Vata* the longing for *Amla Rasa* occurs and there by balance of body functions can be restored²⁵. Interestingly *Rakta* is involved in the formation of *Hrudaya* whereas *Amla Rasa* acts as *Hrudya*. *Hrudaya* (heart) is said as one of the sites of *Pitta Dosha*. Contrary to resemblance between *Amla Rasa* and *RaktaDatu*, *Amla Rasa* is also quoted as a *Nidana* for *Rakta Dushti*²⁶. This is a result of the excess intake of *Amla Rasa*. Any entity when taken in excess will have pernicious effects over the body. Excess *Amla Rasa* will lead to aggravation of *Pitta* due to its *Ushna* and *Snigdha Guna*. This sequentially results in the *Dushti* of *Rakta* leading to various diseases. Due to *RaktaDushti* the successive *MamsaDatu* is also vitiating, hence excess *Amla Rasa* can cause *Vidaha*.

Amla Rasa Karma on Mala:

Due to *Snigdha Guna* it expels *Mala* and *Mutra* with ease. Due to *Ushna Guna*, *Amla Rasa* Promotes *Sveda*. By promoting *Pachana* of *Mala* it expels them. Thus, it initiates proper flow of *Vata*.

Amla Rasa Karma on Agni:

It does *Mukha Kshalana* (makes mouth watery) by promoting salivation and dissolving *Kapha* in

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mouth so that the interaction of *Rasanendriya* with *Dravya* increases, and the *Ahara* in association with *Amla Rasa* tastes better. *Amla Rasa* promotes *Deepana* activity of *Agni* by the virtue of *Ushna Guna* and increases appetite. It also increases *Pachana* aspect of *Agni*.

Amla Rasa Karma on Hrudaya:

Generally, *Hrudya Dravyas* are considered to be good for heart. In the context of *Agrya Dravya* in *Charaka Samhita*, *Amla Rasa* is stated as *Hrudya* in nature. This view is further supported with the *HrudyaDashemani*, as under this group only *Amla Rasa Dravyas* are mentioned. *Amla Rasa* also has *Hrudaya Tarpana* action.

All *Dravyas* are composed of *Pancha Mahabhutas*. *Rasa* is also the compound of *Pancha Mahabhuta*. Therefore, all *Dravyas* possess more than one taste. One among them is dominant and the rest is recessive. The predominant taste is usually tasted in the beginning and found with higher concentration and impact, it is considered as the *Pradhana Rasa* of the *Dravya*. The recessive tastes are called as *Anurasa*.

In the *Samprapti* of *Hrudroga*, it is clearly mentioned that *Nidana Sevana* leads to vitiation of *Dosha* and it does *Dooshana* of *Rasa Dathu* leading to the disease. *Dushti* of *Srotas* is a must for manifestation of any *Roga*, and in *Hrudrogathe* involvement of *RasavahaSrotodushti* can be understood. Important etiological factors resulting *Hrudroga* can be the impairment of *Jataragni* due to *Vata Prakopa*, *Nidana Sevana* or *Ajirna Bhojana*

predisposing to *Pittaja Hrudroga* or else excess *Aamadasha*. This lead to the diminished supply of nourishment and *Pranavayu* to *Hrudaya*. *Vrikshamla* is illustrated as *Hrudya* and *Hrudrogajith*. By the *Vatanulomana* property of *Amla Rasa*, *Vrikshamla* brings *Vata* in normal direction and by the *Deepana Karma* of *Amla Rasa* it encourages the organic metabolism resulting in formation of healthy *Aahara Rasa/Rasa Dhatu*. According to *Dhatu Poshana Nyaya*, *Dhatus* develop and nourishes sequentially. So, *Rasa Dhatu* will have an effect on the quality of successive *Dhatus*. By the *Agnideepana* and *Aamapachana Karma* of *Amla Rasa*, it helps in '*Srotoshodhana*', and the clear *Srotas* facilitate *DhatuPoshana* by nourishing *Dhatus* resulting in production of better successive *Datus* and also does boost the *Ojas* formation. Thus, by means of the virtues described above, *Amla Rasa* performs the function of *Hrudya* by breaking down the pathophysiology of *Hrudroga* and protecting *Hrudaya*.

Further, according to a study conducted on the effects of various taste stimuli on heart rate, solutions of sucrose, NaCl, citric acid, quinine-HCl and monosodium glutamate was taken as test solutions and among them citric acid (sour taste) showed the maximum increase in heart rate²⁷. The strength of citric acid was greater as a stimulus than the strengths of the other taste solutions. Study also suggests that heart

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rate might increase irrespective of pleasant or unpleasant taste. Increase in heart rate produced by taste stimuli may be induced through the autonomic nerve system. Taste stimulation induces salivary secretion; we know salivary glands are digestive glands and saliva starts the digestion process. In their study it was also reported that the maximum salivary secretion occurred after sour stimulation. This signalizes on good stimulation of digestive juices resulting in proper digestion and absorption.

CONCLUSION

Aptopadesha is the first step of acquiring knowledge according to Ayurveda, but it is always necessary to observe, re-evaluate and discuss on various Ayurvedic concepts and principles to attain proper knowledge. Here an attempt was made for further clarification of the textual concept '*Amlam Hrudyanam*' from a different perspective. *Hrudaya*, is an *Avayava* which governs the psychic and somatic aspects of the body, hence is a psycho-somatic component. *Acharyas* are equivocal on the concept of *Hrudroga*. *Hrudroga* in *Samhita* is an umbrella term that involves wide range of cardiac ailments and it is a disease that manifests out of *Rasa Dhatu Dushti*. From the above discussions, it can be concluded that *Amla Rasacana* have a protective action on *Hrudaya Avayava* which supports the concept '*Amlam Hrudyanam*'. Though this is conceptual analysis, the information provided can be utilized

in various experimental and clinical studies. On the basis of an experimental study conducted on an *Amla Rasa Dravya (Vrikshamla)*, it was revealed that the drug has protective effects on organ Heart as all the parameters included for the study supported the same.

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