A REVIEW ON CONCEPT OF SAMSKARA IN UNDERSTANDING KRUTANNA VARGA

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ABSTRACT
Ayurveda has given importance to wholesome diet that is a prerequisite for the promotion of health and prevention of diseases and has given emphasis on the quality of the food substance along with factors like processing and rules for healthy eating. One among them is Ashta Ahara Vidhi Visheshayatana that includes factors to be considered before taking the diet as they determine wholesomeness and unwholesomeness of the diet. Samskara is one entity included under it and has a wide range of applicability. Most of the food that consumed in day-to-day usage undergoes processing in some or the other way. Krutanna varga is one among the Ahara Vargas that includes various preparations of food where Samskara plays a key role. Here an effort has been made to see the association between the methods of preparation and the alteration in Guna with help of research updates.

Keywords: Ayurveda dietetics, Ahara Kalpana, Krutanna Varga, Samskara

INTRODUCTION
Diet is a major component in sustenance of life for an individual as it plays a key role in maintenance of health and supportive role in cure of various ailments. This purpose is dependent on mechanism of interaction between the body and food. There are various factors which influence this interaction but the all factors finally mediate through Guna (Attribute). Guna is defined as an attribute of a substance inherently present in substance that is an indicator for specific effect on the body when consumed¹. The evolution of food from pre historic era till date gives the clue that there is huge changeover in the form of consumption and it varies from raw consumption to various processing techniques. Processing techniques have been largely contributed by the influx of various cultures from time to time. Some of them that could be noted are as follows – Spices like fenugreek and fennel were the influence of Greeks and gave elegance to Indian food, along with lots of flavors. The cooking methods like steaming and frying was due to influence of Mongolia. Mughals had introduced spit fire roasts i.e. kebabs and tandoori items and many spices were cultivated to enhance aroma and flavor. All these processing techniques were evolved with intention of making the food palatable and make it easily get assimilated in the body.
and this definitely influences the state of health. Hence the concept of *Samskara* has been given prime importance along with introduction of category of processed diets named *Krutanna Varga*.

**AIM AND OBJECTIVES:**
To understand the concept of *Samskara* and its effect on *Krutanna Varga* with research updates to understand its influence on health.

**REVIEW AND DISCUSSION**

**Concept of Samskara:**
*Samskara* has been defined as an act of processing that result in transformation of *Guna* (Attribute) of a substance that can be either an *Ahara* (Diet) or *Aushadha* (Medicament). *Guna* is defined as an attribute of a substance inherently present in substance that is an indicator for specific effect on the body when consumed. *Guna* can be of two kinds - *Samsiddika Guna* and *Naimittika Guna*. *Samsiddika Guna* is that permanent and inherent attribute that becomes an identity for the substance, which cannot be altered through any processing while on the other hand *Naimittika Guna* is that temporary or conditional attribute of a substance which gets modified when subjected to different kinds of processing.

*Mudga* (Vigna radiata) irrespective of any kind of processing is always light for digestion because of the *Laghu Guna* whereas Curd before churning is heavy for digestion and is said not to be good for health but after churning is beneficial.

Many current research works have established the effect of *Samskara* on health and reinstate the concepts and illustrations mentioned in the texts of Ayurveda and give a caution to modify the processing techniques with changing times.

**Toya Sannikarsha** refers to processing done by contact with water that brings about modification in its *Guna*. A research work was conducted on effectiveness of various disinfection techniques on carrots, coriander leaves, apples and grapes showed that soaking in 5% vinegar for 30 seconds was the most effective method for their disinfection followed by soaking in lukewarm water for about 2 minutes in comparison to simple washing under running water or soaking in lukewarm water or soaking in salt water. *Agni Sannikarsha* refers to processing done by contact with fire either directly boiling or other methods like steaming. A research work conducted to see the effects of different processing methods in terms of nutritive value showed maximum loss of Proteins was seen in case of Frying followed by Roasting, Pressure Cooking Microwave Cooking and Steaming. Loss of proteins was least in case of Boiling whereas Vitamin C percentage loss was more in boiling and less in microwave cooking.

**Manthana** means modification brought in a substance by churning and *Dadhi* (curd) is said *Shothkara* (induce edema) and the same after *Manthana samskara* it becomes *Shothahara* (reduces edema). The reason for this phenomenon could be the fact that consumption of high calorie diet will increase the volume of adipocytes present in the body which will subsequently lead to inflammation.

When nutritional value of curd and buttermilk are compared it is found that nutrition value in one cup of buttermilk contains 2.2 grams of fat & 99 calories whereas one cup of curd contains 10 gram of fat and 222 calories. *Vaasana* refers to addition of aromatic substances to a food articles like adding of vanilla essence for the preparation of food articles like ice creams; cake etc. A study conducted by comparing the naturally available vanilla pods and vanilla essence that is available in market in terms of radical scavenging activity sowed that methanolic extract of vanilla essence had lesser radical scavenging efficiency when compared to natural vanilla pods that indicates that there is a loss of phytochemicals during processing. *Kaala* means modification brought out by storing a substance. Storage of food materials by refrigeration is common in all the households. A study conducted to find out how storing of various food articles results in change in its nutritional composition showed that fresh fruits were not stable for long periods in the refrigerator and milk may also undergo vitamin loss during re-
frigerated storage mainly because of its exposure to light and oxygen\textsuperscript{12}. \textit{Bhajana} refers to the storage materials. A study was conducted to find out effect of storage containers on water for the presence of coliform bacteria by using various containers like glass, plastic, ceramic, stainless steel, aluminum, mud pot, coconut shell, brass, copper and silver and water was stored for a period of 24hrs. Presence of bacteria before and after the storage period assessed by physico chemical parameters concluded that silver and copper containers were good for storage of drinking water, having antibacterial activities within 24 hours against E.coli\textsuperscript{13}.

Based on the source or method of intake of food, \textit{Ahara} has been made into various \textit{Vargas} that is mentioned in Table 1.

### Table 1: Numerical classification of \textit{Ahara Varga} according to Bruhat Trayee

<table>
<thead>
<tr>
<th>Sl no</th>
<th>Author</th>
<th>No of Vargas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Caraka</td>
<td>12</td>
</tr>
<tr>
<td>2.</td>
<td>Susruta</td>
<td>10 (liquids) + 8 (solids) = 18</td>
</tr>
<tr>
<td>3.</td>
<td>Vagbhata</td>
<td>5 (liquids) + 7 (solids) = 12</td>
</tr>
</tbody>
</table>

### Concept of Krutanna Varga:

\textit{Krutanna Varga} is one among the \textit{Ahara Vargas} that consists of cooked food preparations that are consumed in a daily basis and used as a part of treatment as \textit{Samsarjana Krama} (Post therapeutic diet). Samhita kala is from 1500 BC to 5\textsuperscript{th} Century AD, earliest of treatise where \textit{Krutanna varga} was documented was in \textit{Caraka Samhita}, the number of Preparations was gradually increased from \textit{Samhita kala} to that of \textit{Nighantu kala}, (Table 2) this shows that with respect to time there was a gradual increase in number of preparations and many of new processing techniques have been evolved due to invasions by various countries. Many of the preparations mentioned in \textit{Krutanna Varga} are utilized in the present era as mentioned in Table 3.

Acharya Susruta has classified various cooked preparations in \textit{Bakshya Varga} apart from \textit{Krutanna varga}.

### Table 2: Comparison of preparations mentioned under \textit{Krutanna Varga} by various authors

<table>
<thead>
<tr>
<th>Name of author</th>
<th>Name of Varga</th>
<th>Time period</th>
<th>No of Preparations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caraka</td>
<td>Krutanna varga</td>
<td>2\textsuperscript{nd} century</td>
<td>64</td>
</tr>
<tr>
<td>Sushruta</td>
<td>Krutanna varga + Bakshya varga</td>
<td>5\textsuperscript{th} century</td>
<td>43 + 30</td>
</tr>
<tr>
<td>Vagbhata</td>
<td>Krutanna varga</td>
<td>7\textsuperscript{th} century</td>
<td>32</td>
</tr>
<tr>
<td>Madanapala Nighantu</td>
<td>Dhanyakrutannadi varga</td>
<td>14\textsuperscript{th} century</td>
<td>83</td>
</tr>
<tr>
<td>Kaiya deva Nighantu</td>
<td>Krutanna varga</td>
<td>15\textsuperscript{th} century</td>
<td>122</td>
</tr>
<tr>
<td>Bhava prakasha</td>
<td>Krutanna varga</td>
<td>16\textsuperscript{th} century</td>
<td>97</td>
</tr>
</tbody>
</table>

### Table 3: Preparations commonly practiced in current era

<table>
<thead>
<tr>
<th>Name of preparation</th>
<th>Common name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhakta/Odana</td>
<td>Boiled rice</td>
</tr>
<tr>
<td>Dala</td>
<td>Dal</td>
</tr>
<tr>
<td>Krushara</td>
<td>Kichidi</td>
</tr>
<tr>
<td>Kshirika</td>
<td>Kheer</td>
</tr>
<tr>
<td>Rotika</td>
<td>Roti/ Chapati</td>
</tr>
<tr>
<td>Purika</td>
<td>Puri / Kachori</td>
</tr>
<tr>
<td>Parpata</td>
<td>Papad</td>
</tr>
</tbody>
</table>
Samskara plays a major role in preparation of Ahara and produces various benefits on consumption; some of examples with their method of preparation and various research works done under Krutanna Varga are as follows:

**Yavagu:**
Yavagu is prepared by taking one part of rice to 6 parts of water and to be reduced half and should contain more of solid portion and little liquid portion; properties are Santarpani (nourishing), Vrushiya (aphrodisiac), Bala Vardhana (Provide strength) and Basti Shodana (Cleanses Bladder).14

Panchakola - Piper longum, Root of Piper longum, Piper retrofractum, Plumbago zeylanica and Zingiber officinale are having properties like Ruchya (enhance taste), Deepana (appetizer), Pachana (Digestive), Medohara (Reduce fat), Shoolagna (Relive from pain) when it is processed in form of Yavagu it had retained the properties of Deepana (appetizer) and Pachana (Digestive) that was found out by an research work15.

**Yusha:**
Shimbi Dhanya (Pulses) should be taken and processed in 18 parts of water; properties of Yusha are Deepana (appetizer), Rochana (enhance taste), Vrushiya (aphrodisiac), Varnya (provide complexion), Balakaraka (provide strength).16 There are various types of Yusha like Mudga Yusha, Masuradi Yusha (Lens culinaris), Chanaka Yusha (Cicer Arietinum) etc.

Mudga before processing has properties like Kashaya (Astringent), Madhura Rasa (Sweet), Laghu (light for digestion), Ruksha (Ununctous), Sheeta Veerya (Cold poteney), Katu Vipaka, Kapha Pittagna17 and when it is processed into Yusha its properties are Kaphagna, Deepana (appetizer)18. A research work conducted on Mudga Yusha showed that Radical scavenging activity is comparatively more in case of Mudga Yusha when compared to raw Mudga (Vigna radiate); when nutritional value among different types of processing like open vessel, closed vessel and pressure cooker are compared it was found out that open vessel method was best in retaining nutrients19.

**Rotika:**
Rotika prepared by taking powdered grains and adding with required amount of water; made into dough, later it should be given a definite shape and applied with dry flour and placed over fire.20 There are various kinds of Rotika like Yava Rotika (Hordeum vulgare), Chanaka Rotika (Cicer arietinum) etc.

Yava has properties like Kashaya (Astringent), Madhura Rasa (Sweet), Ruksha (Ununctous), Guru guna (Heavy for Digestion), Sheeta Veerya (Cold potency), Kapha Pittahara21 when it is processed in form of Rotika it attains Laghu guna. A research work done on Yava Rotika showed Good inhibition potential for anti-diabetic enzyme assay for α-Amylase and α-Glucosidase and can be indicated as a part of diet in diabetes22.

**CONCLUSION**
Concept of Samasiddhika and Naimittika Guna is important to understand the concept of Samskara and by Samskara the modification of attributes takes place at the level of Naimittika Guna. Therefore, when the comparison made between the properties of raw substance and processed preparations men-
tioned in *Krutanna Varga*, some of their *Samsiddhika Guna* (inherent qualities) had not changed. However, *Samskara* is essential to make the substance palatable, bio available and therapeutically useful. Individually each type of *Samskara* explained in Ayurveda needs to be established through objective parameters and thereby that become scientific.

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