

CONCEPT OF VIRUDHA AHARA- THE PRESENT SCENARIO

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ABSTRACT

Observations on antagonistic food is a unique contribution from *Ayurveda* in order to prevent internal diseases and synergize action of drugs in the management of disorders. *Charaka* explained in detail and said that person who consume *Viruddha Ahara* is prone to imbalance of doshas leading to many disorders. *Ayurveda* clearly defines that certain diet and its combinations, which interrupts the metabolism of tissue, which inhibits the process of formation of tissue and which have the opposite property to the tissue are called as *Viruddha ahara* or incompatible diet. The food which is wrong in combination, which has undergone wrong processing, which is consumed in incorrect dose, which is consumed in incorrect time of day and in wrong season can be describes as *Viruddha Ahara*. The present article deals with the review of *Viruddha Ahara* in terms of food–food interactions, food processing interactions. The article narrates the modern perspective of *Samskar Viruddha*, *Veerya Viruddha*, *Samyoga Viruddha*, and so on. It also enlists a variety of incompatible dietary articles consumed in day-to-day life and its hazardous effects on health.

Key words: *Ayurveda*, food–food interactions, incompatible diet, processing, *Viruddha Ahara*

INTRODUCTION

Viruddha Anna or incompatible diet is very important contribution discussed by ancient *Ayurveda Acharyas*, which is known to be the cause of many systemic disorders. In present era, modern scientists are still working on this aspect which was already dealt in our books centuries ago. It is important to understand the mechanism of how *Viruddha Ahara* is a cause of many metabolic disorders. It is essential to know certain food combinations

which interact with each other and create many of systemic disorders.

Aims and Objectives:

1. To explain in detail the mode of action of *virudha ahara* in causing the diseases.
2. To emphasize the need for prevention of intake of *virudha ahara* in present days.

Materials and Methods:

Charaka defined *viruddhaahara* that certain diet and its combinations which interrupts the metabolism of tissue, which inhibits the process of formation of tissue and which have the opposite property to the tissue. The food which is wrong in combination, has undergone wrong processing, consumed in incorrect dose, and/or consumed in incorrect time of the day and in wrong season can lead to *Viruddha Ahara*. With the help of modern technology and biochemistry aspects, it becomes easy to elaborate the effect of *Viruddha Ahara* mechanism of action. The basic meaning of word *Viruddha* is opposite which means that, food combination of certain type of food may have –

- Opposite properties
- Opposite activities on the tissues
- May exert some unwanted effect on the body when processed in a particular form
- May exert undesirable effects, when combined in certain proportion
- May have unwanted effect if consumed at wrong time

Ayurveda literature has described 18 types of *Viruddha Ahara*[1], which can be summarized as follows:

1. *Desha* (place) *Viruddha*
2. *Kala Viruddha*
3. *Agni Viruddha*
4. *Matra* (quantity) *Viruddha*
5. *Satmya* (wholesome) *Viruddha*
6. *Dosha Viruddha*
7. *Sanskar* (mode of preparation) *Viruddha*
8. *Veerya* (potency) *Viruddha*
9. *Koshtha Viruddha*
10. *Avastha* (state of health) *Viruddha*
11. *Krama* (sequence) *Viruddha*

12. *Parihar Viruddha*
13. *Upachar* (treatment) *Viruddha*
14. *Paak* (cooking) *Viruddha*
15. *Samyoga* (combination) *Viruddha*
16. *Hriday Viruddha*
17. *Sampad* (richness of quality) *Viruddha*
18. *Vidhi* (rules for eating) *Viruddha*

Examples of incompatibility/antagonistic (*Viruddha-Aahara*)

- a) *Veerya Viruddha* (potency incompatibility) — fish + milk.
- b) *Sanskar Viruddha* (processing incompatibility) — heated honey.
- c) *Matra Viruddha* (dose incompatibility) — honey + cow's ghee mixed in equal proportion.
- d) *Krama Viruddha* — hot water after taking honey
- e) *Kala Viruddha* — (time incompatibility) pungent substance in summer and cold substances in winter.
- f) *Krama Viruddha* (order incompatibility) — consuming curd at night. Taking Madhura Rasa food or Dravya at the end of meals and Tikta and Katu Rasa Dravyas (food substances) at the starting of meals.
- g) *Samyoga Viruddha* (combination incompatibility) — fruit salad or milk + banana.
- h) *Parihar Viruddha* (contraindication incompatibility) — consuming cold water immediately after having hot tea or coffee.

From the above list, it can be understood that any procedure, combinations, dose, amount of food, opposite properties of food if

consumed in a regular fashion can lead to number of disorders.

Diseases caused by Virudha Ahara:

Charaka has mentioned that such types of wrong combinations can lead to even death. If above-said rules for the diet are not followed then the diseases occurring due to *Viruddha Ahara* can occur, which are mentioned below:

Impotency, *Visarpa* (erysipelas), blindness, ascitis, bullus, insanity, fistula in ano, coma or fainting, intoxication, abdominal distention, stiffness in neck, varieties of anemia, indigestions, various skin diseases, diseases of intestines, swelling, gastritis, fever, rhinitis, and infertility.

It can be observed from the above list that *Viruddha Anna* can lead to disorders up to impotency and infertility i.e. *sukradushti*, i.e., starting from *rasa dhatu* it effects all upto *sukra dhatu* which explains the severity of potency of adverse effect of *virudha ahara* intake. If the above list of diseases is classified as per the body system, it can be said that, immune system, endocrine system, digestive system, nervous system, and circulatory systems are affected by continuous consumption of *Viruddha Ahara*.

Food incompatibilities in Today's Perspective

Viruddha Ahara can lead to inflammation at a molecular level. Number of food incompatibilities are mentioned in old Ayurvedic literature, such as *Charaka* and *Sushruta Samhitas*. Along with these type of food combinations some are also in use in today's era. We have to identify that new food incompatibilities, which are used today in day-to-day life as per *Ayurvedic* perspective and made research on them and has to

create awareness in public about its consequences.

Results:

From over all in present era the *virudha ahara* we take can be categorized into:

1. *Karma Viruddha*,
2. *Krama Viruddha*,
3. *Veerya Viruddha*, and so on.

Such food combinations can prove harmful, which may be imparting its untoward effects on immune system, cellular metabolism, growth hormone.

A new branch called topography (a science related to combination of food) is emerging, which tells about the combination of basic categories of the food. As per this science proteins must not get combined with starch and carbohydrates and may be consumed differently.

- 1) Consuming proteins and starches together will result in absorption of one being delayed by the other. (2)
- 2) Similarly, eating sugars and acid fruits hinder the action of ptyalin and pepsin, reducing the secretion of saliva, and delaying digestion. If insufficient amylase is present in the mouth, starch will not be digested at all in the stomach, instead clogging up the works until amylase in the small intestine can get to work on it.

This unwanted effect of wrong combinations of food is not limited up to gastrointestinal tract only but may affects the major systems of the body. Such reactions can be less important but on long term, it can be fatal upon precipitating serious side effects.

Let us have some examples of *ahara* we are taking now-a-days unknowingly, which are

more harmful, as our daily routine which all comes under *viruddha ahara* only.

a) Green tea or black tea and milk

Tea contains flavonoids called catechins, which have many beneficial effects on the heart. When milk is added to tea, then a group of proteins in milk, called caseins, interact with the tea to reduce the concentration of catechins. So, avoid tea and milk together.

b) Milk and yoghurt interaction

As you know consuming both together can precipitate milk inside the stomach that may irritate and induce vomiting. So, avoid milk and yoghurt together.

c) Tea and garlic

Tea contains anticoagulant compounds called coumarins. When combined with garlic (that also has anticlotting properties), they may increase the risk of bleeding. So, better to avoid tea and garlic together. (3)

d) Pomegranate juice and grapefruit juice

Pomegranate juice and grapefruit juice, are both known to block the cytochrome P450 3A4 enzyme systems in the intestines and increase blood levels of many medications you are taking. Taking these two juices together may synergize the above action.

e) Unripe (green) tomatoes or potatoes and alcohol

The unripe green tomatoes contain huge amount of solanine, which may interact with alcohol. You may feel more sedation if the intake is more. (4)

DISCUSSION

Samskara Viruddha

Deep frying of potatoes can develop toxic substances, such as acrylamide, which can prove to be carcinogenic.

- 1) Eating potato chips regularly is *Samskara viruddha*.
- 2) It is also mentioned in *Ayurveda* text that heating honey is *Samskar Viruddha*. Honey that is available in the market is Agmark honey and this honey is strongly heated before packaging. It is very important to find the relevance about why we must not heat honey.

According to a conducted study heated honey (>140°C) mixed with ghee produces hydroxymethyl furfuraldehyde (HMF) which may produce deleterious effects and act as a poison in due course (*Ushnam cha samagrutham madhu marayati*) it comes both under *samskar virudha* and *samyoga virudha*.

Mode of action of *Viruddha Ahara*

Viruddha Ahara taken regularly could induce inflammation at a molecular level, disturbing the eicosanoid pathway creating more arachidonic acid leading to increased prostaglandin-2 and

thromboxane. This inflammatory effect is an important effect. As these are all the basic pathologies that create *Agni Mandya*, *Ama*, and a number of metabolic disorders.

1) Concept of HNE

It has been clearly mentioned in *Ayurveda* text that oil and food must not be reheated. Reheat-

ing of oil creates more oxidation and if consumed may create more oxidative stress creating

more free radicals (5). A recent study found that a toxin called 4-hydroxy-trans-2-nonenal (HNE) forms when such oils as corn, soybean, and sunflower oils are reheated. Consumption of foods containing HNE from cooking oils has been associated with increased risks of cardiovascular disease, stroke, Parkinson's disease, Alzheimer's disease, Huntington's disease, various liver disorders, and cancer.

Certain researches pointed out that the quantity of HNE is higher in deep fried foods, such as snacks that fried in cooking oils such as corn, soya bean, and sunflower oils. Eg: French fries, fried items, Manchuria etc.

Scientific explanation about the formation of HNE is when fruits or vegetable pieces are boiled inside oil to get fried, then oil molecules that penetrated into the fried food gets converted into similar molecules like that of HNE. While getting cooled to room temperature, this molecule will convert into toxin HNE, which will ultimately lead to risks of cardiovascular disease, stroke, Parkinson's disease, Alzheimer's disease, Huntington's disease, various liver disorders, and cancer.

Majority of the disease has an inflammatory pathology. Even if drug therapy successfully blocks the COX and LOX enzyme systems, arachidonic acid can still be converted into other damaging molecules, such as epoxy derivatives. Therefore, another approach to treating the diseases involving eicosanoids seems desirable: to try to prevent eicosanoid production by dietary modifications. In addition, consuming omega-6-rich oil and that too

rancid by reheating aggravates the inflammatory pathology

2) Concept of AGEs:

High-temperature cooking must also be called as *Sanskara Viruddha*. Foods typically cooked at high temperatures, like meats, may contribute to the risk and exacerbation of chronic diseases linked with inflammation. When proteins are cooked with sugars in the absence of water, AGEs Advanced Glycosylated End Products are formed. Water, however, prevents these sugars from binding to the protein molecules. Thus, combination of proteins with sugar and cooking it in absence of water is *Viruddha*. Grains, vegetables, fruits, and all such have protein in them as well, with browning being an indication of AGEs. Certain processing deteriorates the nutrients' value of the food or convert into RAGE that is receptor for Advanced Glycosylated End Products. It is now well established that formation and accumulation of AGEs progress during normal aging, and at an extremely accelerated rate under diabetes, thus being implicated in various types of age related disorders, such as diabetic vascular complications, neurodegenerative diseases, and cancers. Certain type of food combinations and the unwanted substance released by certain incompatible food *in vivo* may have a bad impact on immune system.

- 1) Milk which contains lactogen and certain fruits, such as bananas, which also contain common allergen may aggravate an asthmatic attack.
- 2) Milk with eggs, reheated cow's milk, consuming too much sugar along with saturated fats, can lead to number of immunologic disorders.

- 3) It has been regularly observed in the clinics that rheumatoid arthritis patients who consume curds at night, sour food at night complain of more morning stiffness.

It must be studied that weather such type of *Kala Viruddha* diet would accelerate antigen and antibody reactions and exhibit an impact on WBCs. These types of studies would also suggest that regular consumption of *Viruddha Ahara* would also lead to immunosenescence.

3) Concept of Zn and Antioxidant properties:

As per the definition explained by *Charaka Samhita* those food substances and combinations, which induce deteriorating action on the body tissues, that is, *Dhatu*s can be called as *Viruddha Ahara*.

Fast food is high in energy density and low in essential micronutrient density, especially zinc (Zn), of which antioxidant processes are dependent. Nowadays eating pizzas, noodles are the perfect examples that's why children are becoming obese with nutritional deficiencies.

It has been tested that frequent fast food consumption could induce oxidative damage associated with inflammation in weanling male rats in relevance to Zn deprivation, which could adversely affect testis function. This could be another reason that *Charaka* has mentioned the diseases, such as *Shandhatva* and *Santandosh*a, caused due to excess consumption of *Viruddha Anna*.

4) Concept of effect on Genes:

The process of creating a new protein in cells is referred to as gene expression. Gene ex-

pression is highly regulated by the body to ensure that the correct protein is produced in the correct amount, and at the appropriate time. Errors in gene expression have the potential to lead to illnesses. Experts in nutrition believe that these epigenetic changes can affect the expression of certain genes. In the quotation of *Charaka* about the effects of *Viruddha Ahara* he has mentioned *Shandhatva*. *Shandhatva* can be congenital, which can be due to certain genetic expressions in fetus if the parents have consumed regular *Viruddha Ahara*.

Certain food combinations are capable of switching on or off little epigenetic tags on genes that tell other genes what to do to be healthy, repair, reproduce, and fix anything that goes wrong with the gene's ability to do the healthy thing to make sure the person is healthy, doesn't age too rapidly, and stays energetic. A number of dietary components exert their beneficial effects on human health by modulating the expression of genes involved in the pathogenesis and/or in the protective mechanisms relative to epidemiologically relevant diseases (e.g., cancer, cardiovascular diseases).

Apart from all biochemical effect of *Viruddha Ahara*, food substance which is not liked by the person leads to *Viruddha Ahara*. This may lead to continual maldigestion too. *Charaka* has also mentioned that those people who are able to digest *Viruddha Ahara* properly, who exercise very regularly, who are young and have a very good status of *Agni* can consume *Viruddha Ahara*.

CONCLUSION:

viruddha ahara shows its effects from *rasa* level *dhatu* to *sukra dhatu* i.e., it effects all the

dhatus which shows its severity of consequences which leads to many systemic disorders and it also acts at gene level which reveals that it is cause for many diseases of unknown etiology (idiopathic) and also cause for carcinogenesis. So, in order to prevent these deadly disorders one has to take the preliminary step of preventing the intake of *virudha ahara* in our day to day life.

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