

## THE FOOD SAFETY AND QUALITY WITH SPECIAL REFERENCE TO *DOOSHIVISHA*

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### ABSTRACT

In today's era various poisonous substances are produced due to industrialization and agriculture. It is the age of advanced science and technology i.e. competing with natural and organic world but, the fact is that the man is going far away from the nature. There is drastic change in life style, food etc. Day by day our body gets exposed to various toxins through air, water and food. These toxins remain in the body in a dormant stage for a long period and result in various types of diseases. This is nothing but the concept of "*Dooshivisha*" explained by our *acharyas*. *Dooshivisha* is a very unique concept in *Ayurved*. It is due to constant or repeated exposure to *dooshita desha, kala, anna, divaswapna* etc. The symptomatology is influenced by seasons and food changes. The long term exposure may interfere with various normal metabolic activities of body as well as other genetic disorders. The concept of *Dooshivisha* with reference to modern food culture habits viz; processed and preserved food, canned food, food items with preservatives, adulterants, artificial colours, intoxicating beverages also the artificial fruit ripening, use of chemical fertilizers and pesticides. As the 'Aahar' is 'Pran', human should be cautious enough in consuming such food items. The priority towards the safety and quality should be given.

**Keywords:** *Dooshivisha* , food habits

### INTRODUCTION

In today's era various poisonous substances are produced due to industrialization and agriculture. It is the age of advance science & technology i.e. competing with natural and organic world but the man is actually going far away from nature by adopting these advance technology. There is drastic change in our life style. Everything has been changed. Our daily routine, food habits are extremely changed. In ancient times, it was done according to *Rutucharya, Dinacharya*. Due to these changes, our body gets exposed to various toxins through air, water and food. All these toxins remain in our body in a dormant stage for a long

period and due to some stimulating factors, they result into various diseases. This is nothing but the concept of "*Dooshivisha*".

### Concept of *Dooshivisha* according to *Ayurved* –

*Dooshivisha* is a very unique concept in *Ayurved*. It is a type of low potency poison or when all *vishas* being not completely eliminated from body or partially detoxified due to incomplete metabolism, loose its original *gunas* and gets converted into low potency poison due to some conjugation and after a secondary cause it produces several diseases. As stated by *Sushrutacharya* is remains in body for many years due to covering by *kapha*, as per metioned in *Sushrut*

*kalpasthana* 2/25-26.<sup>1</sup> *Doooshivisha* explains about the toxic products getting settled in the body & precipitating diseases frequently on exposure to favorable conditions like- *Dooshita desha*, *Kala*, *Anna*, *Divaswapna* etc. as per stated in *Sushrut kalpasthana* 2/33.<sup>2</sup> *Acharya Dallan* has explained about the above conditions in detail. *Doooshita desha* that means *Anup desha* & having very cold climatic conditions. *Kala* is considered as *durdina*, *atisheeta kala* etc. *Dooshita anna* means *sura*, *tila*, *kulatha*, etc food materials taken repeatedly. Along with food he has advised to consider *vyayam*, *krodha* etc also. This *Dooshivisha* affect all *dhatus* & *upadhatus* and get aggravated during the seasons of reduced immunity and above triggering factors.

### **Contemporary view of Dooshivisha-**

Increased prevalence of chronic diseases related to diet & lifestyle can be explained on the basis of concept of *Dooshivisha*. Now a days, the food we eat is mostly processed & preserved. The canned food items with preservatives are most common in our diet. The modern food habits also include the use of adulterants, artificial colours, intoxicating beverages, also the artificial fruit ripening, use of chemical fertilizers and pesticides. The overall effect of by consumption of these food items, most of the people are suffering from symptoms of *Doooshivisha*.

### **1. Pesticides & chemical fertilizers<sup>3</sup>**

To get the crop in a large quantity many chemical fertilizers are used by farmers. As chemical fertilizers are comparatively cheap than organic fertilizers, so farmers use them at a wide range. All these chemicals remain in the soil and ultimately soil poisoning occurs and crop get affected. Pesticide residue (endrin, DDT, endosulfan,

heptachlor), crop contaminants like aflatoxins, patulin, ocher toxin, other heavy metals are the major contaminants found in fruit & vegetables. Mostly these pesticides contain arsenic, copper, lead, phosphorus like toxins, due to them the soil also become toxicated.

Health hazards: These pesticides can leave adverse effect on nervous system. Some harmful pesticides (mostly organo phosphorous compounds) can cause hazardous diseases like liver-kidney-lung damage even cancer. It affects the appetite & weight of a person. Also causes irritability, insomnia, behavioral disorder and many dermatological problems.

### **2. Artificial fruit ripening<sup>4</sup>**

Now a day's farmers do the artificial ripening of fruits. Many times the unripe tomatoes, bananas, mangoes are picked from trees & kept in some chemicals like calcium carbide, ethelene gas, phosphorus, arsenic, acetylene etc. All these chemicals accelerate the ripening process but are proved to be very harmful for health. Their use is illegal in most of the countries.

Health hazards: Calcium carbide has carcinogenic properties, also it acts as a neurotic agent which can cause neurological disorders. It is contraindicated for pregnant woman & children. Though these chemicals are used in small amount, they act like cumulative poison. The poisonous symptoms like vomiting, diarrhea, burning or tingling sensation, numbness, headache, dizziness are seen.

### **3. Food preservatives<sup>5</sup>**

For canned food many preservatives are added in it for better preservation of food. Specially preservation needed for milk items and sausages & bakery products. Mostly nitrates, nitrites, sulfur dioxide, me-

tabisulfite, sodium benzoate or benzoic acid, butylated hydroxytoluene (BHT), butylated hydroxyanisole, mono-glycerides and diglycerides are used as preservatives.

**Side effects:** These preservatives are taken in small quantity in our body, but after a long period it accumulated in body & shows many hazardous effects on body. Nitrates & nitrites mainly used for preservation of meat, beef etc causes allergy, asthma, nausea, vomiting, headache also cause cancer. Sodium benzoate causes severe allergic reaction & cancer. Sulfides used for prevention from spoilage of fruits & vegetables. They cause allergy, asthma, joint pain, vomiting, palpitation. Sodium benzoate mainly used in cold drinks, juices, pickles cause severe allergic reaction and even cancer. Butylated hydroxytoluene & hydroxyanisole used in potato chips, beer, frozen pizza, dry cereals, fresh meat can cause liver disorders & cancer. Mono & diglycerides used in cookies, cakes, bread, butter, roasted nuts can cause birth defects & cancer.

**4. Food colors and their hazards<sup>6</sup>:** Some artificial colors are used to give artificial colour to food & beverages to make them attractive. Some food colours can cause allergies, asthma, hypersensitivity, carcinoma.

**5. Artificial sweeteners, emulsifiers, flavours & their side effects<sup>7</sup>**

Saccharine, aspartame is the artificial sweeteners used instead of natural sugar. But repeated use may cause asthma, cancer etc. Propylene glycol is a food emulsifier used in ice-cream can cause skin manifestations. Many natural & artificial flavours are used in food items. Monosodium glutamate is the commonest. The long term use of it can cause depression, chest pain, headache, allergy. Considering all above signs of toxicity, we can compare them to the signs of

*Dooshivisha* explained by *Acharya Sushrut*. There is a lot of similarity in both.

The person affected by *Dooshivisha* shows following signs & symptoms as per mentioned in *Sushruta kalpa sthana 2/27-32*.<sup>8</sup> Above symptoms can be compared with the symptoms arising by consumption of such contaminated food items. The common ones between them are-

*Bhinnapurishvarna, Vigandhavairasya-mukha, Pipasa, Moorchha, Vaman, Atisara, Kitibha, Kotha, Mandal, Kushtha, Arochak*. -Nausea, vomiting, diarrhea, allergic reactions, skin diseases.

Liver disorders- *Dakodara*

Birth defects- *Shukrakshaya*

Headache, bodyache- *Shirashula, angamarda*

Insomania, behavioral disorders, dizziness, depression – *Unmada*

Multisystem involvement such as CNS, CVS, RS, GIT, GUT are seen in above.

By comparing both, we can conclude that the symptoms arising due to daily consumption of such type of food can lead to *dooshivisha*. Hence for such types of symptoms if developed then the treatment mentioned by *Sushrutacharya* for *dooshivisha* should be given to patients.

As the 'Aahar' is 'Pran' for human beings we should be cautious enough in consuming such modern food items. The priority should be given towards the safety & quality of food. Hence we should be cautious about the preserved food and eat healthy food.

## CONCLUSION

The symptoms arising due to consumption of this type of food is very much similar to *Dooshivishalakshans* as *Anaha, Avipaka, Arochak, Annamada, Atisara, Vaman, Trishna, Guruta, Bhinnapurishva Mandal, Kotha, Kushtha* etc. So treatment for *Doo-*

shivisha explained by Sushrutacharya will be definitely helpful in diseases caused by such contaminated food articles.

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