

**FOOD TOXICITY AND HEALTH- AN REVIEW****Dr. Abhijit Arunrao Kawale\*<sup>1</sup> and Dr. Mamata Adhao<sup>2</sup>**<sup>1</sup>MD Scholar Agad Tantra Department Bhausaheb Mulak Ayurved Mahavidyalaya, Nagpur.<sup>2</sup>Reader Agad Tantra Department Bhausaheb Mulak Ayurved Mahavidyalaya, Nagpur.Article Received on  
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In ancient time poisoning was one of important method to kill enemies. Poison used to administered through food, drinks, cosmetics etc. In rapidly increase human population one Major issue concern to produce sufficient and healthy food while sustaining environment and ecosystem. Uncontrolled contamination in food whether biological and non-biological. Daily changes in life style, bad food habits develops the Visha (Poison) in body from the food leads to serious disorders like *Aamvisha*, *Dushivisha*, *Garvisha* which appear negative health effect, social and economic disturbances. Increase use of pesticides dangerous for food production. Food contamination with biological and environmental pollutant occur through several stages of production and

processing. During food processing food lost its important ingredients. Some frequent pathogenic bacteria link to food toxicity. Global food toxicity is a major concern for public health. It is important to aware people how food toxicity develops there fore to take prevention before contamination.

**KEYWORDS:** Food, Visha, Ayurveda, life style, Poisoning.**INTRODUCTION**

Toxicity is ability of substance, when inhaled, ingested or absorb by skin to cause damage to living tissue impairment of CNS, severe disorders, death. The amount of exposure required to produce these results very widely with nature of substance and duration of exposure to it.

Acute poisoning occurs when large amount of exposure and Large dose received by exposure to high concentration of short. Chronic poisoning occurs through exposure to low concentration over long period of time. Day by day toxicity increases because of

contaminated air, water, soil pollution, ingestion contaminated food harmful for human being. Now a day's changes in life style occurs present generation more like to consume junk food, working late night, not doing exercise. This is referred to term like *Hetu sevana*, *Vehavdharan*, *Diwaswap*, *Viprit chesta*, *Virudhha Anna sevan* which harmful the normal physiology of human body. *Pragyaparadh* is responsible to disturb daily routine of life and peoples suffered from health disorders and produce *visha* (poison) like *Aamvisha*, *Garvisha*, *Dushivisha* etc. Day by day consumption of processed food increases in young generation then it becomes dangerous for life. Most of the Indian people working in farm and become exposed to pesticide it leads to toxicity.

### AIM AND OBJECTIVE

- 1) To identify risk of food toxicity and health disorder existing in community.
- 2) To analysis literature review of food toxicity.

### MATERIAL AND METHOD

The article based on review of Ayurved textbook related to subject. The basic Ayurved text *Charak Samhita*, *Sushrut Samhita*, *Astang hridayam*, *kautilya arthshashtra* and available commentaries are used to review. Various Ayurved and Modern compendia of different authors referred for the study. Supportive text of contemporary science were also utilized. Various references from the internet, journals, web search, peer review journals were also revised to learn present knowledge on this topic. Food conversion in to *visha* (poison) divide in to disorders like *Aamvisha*, *Dushivisha*, *Garvisha*. Toxicity develops while food processing, Pesticides are more use in india therefore toxicity of pesticides also more commonly developed.

### Aam visha

The Aamdosha develops in those person which habitually take *Virudhha ahar* (antagonist food), meal when previous meal not digested properly and meal during indigestion is known as *Aamvisha* (toxaemia due to aam) by physician because produces symptom like poisoning.<sup>[1]</sup> Aam convert in to *Aamvisha* whenever aam is transferred in to *aamvisha* it will get 10 qualities of *visha* (poison)<sup>[2]</sup>, this is exceedingly curable because of emergent nature and contradictory management. Due to aam two disorders developes in body *Alasak* and *Visuchika*.<sup>[3]</sup>

Intake of excessive food, Heavy intake of food and drink, *Ruksha* (Rough), *Shita* (cold), *Shushk* (Dry), *Dwishta* (Aliked), *vidahi* (burning), *Apavitra* (Uncleaned), *Virudhha ahar* (antagonist food), develops *Aamdosha* along with afflicted with psychic emotions such as passion, anger, greed, confusion, bashfulness, grief, concient, excitement and fear also cause over affection of Aam. Even wholesome food taken in proper quantity but due to Anxiety, Grief, Fear and Anger, Sadness and Vigil food not digested properly.<sup>[4]</sup> Ras dhatu which is not formed due to weakness of digestive fire and accumulate in stomach in abnormal state is known as Aam.<sup>[5]</sup>

### Dushi visha

Poison whether animal, vegetable or chemical not fully eliminate from the system and partially inherent there in, enfeebled of course by anti-poisonous remedies is known as Dushi visha (weak or slow poison) which is even extended to those keenness of potency where enfeebled by Sun, the fire and Wind as well as those which are found to be naturally devoid of some ten natural quantities of poison. A dushivisha owing of its enfeebled or attenuated virtue and as a necessary consequence of its being covered with body kapha, ceases to be fatal through retain in system for number of year.<sup>[6]</sup>

Dushivisha is vitiated (aggravated) by direct breez, use of uncooked food, cloudy weather, sleep during day time, Ingestion of unsuitable food it becomes vitiate the dhatus.<sup>[7]</sup> Dushivisha produces *Shonit dushtaru*, *Koth*, *kitibh*, *Urticarial rash* due to disorder of blood, thus the poison takes away life soon by affecting each dosha.<sup>[8]</sup> Symptoms includes Diarrhoea, Discoloured complexion, Vomiting, Thirst, Bad taste in mouth, Confused speech, Epileptic fits etc.<sup>[9]</sup>

### Garvisha

Garvisha is also known as artificial poison. It is prepared from different drugs, some may kill the person due to certain combination of drugs, while some other after long time or may only produce swelling Anaemia, Enlargement of abdomen, Insanity, Haemorrhoids etc.<sup>[10]</sup>

The symptoms of Garvisha includes body become *Pandu varna* (pale), *krush* (emaciated), *Alpagni* (Poor digestion) and Hypertrophy or dilatation of heart, Oedema in hands and feet, *Udar roga* (ascites), *Grahani*, *Gulma* etc.<sup>[11]</sup>

**Processed food**

Processed food are altered in some way during preparation to make them more convenient, shelf stable and favourable for consumers. Now a days peoples adopt western diet high in processed food, they get sick. The food they have been chemically, mechanically processed and made from refined ingredients and artificial substance known as processed food.

Processed food and beverages are the biggest source of added sugar in diet. Sugar is very unhealthy and have serious adverse effect on metabolism when consume in excess. Highly processed food are often contain preservatives, colorants, flavour, texturants. For many people junk food can hijack the biochemistry of brain leading to downright addiction and cause them to lose control on their consumption. The carbohydrate found in processed food is usually refined, it lead to rapid spike in blood sugar and insulin level cause negative health effect. There are very nutrient found in whole food that are not found in processed food. Soluble fermentable fibres has various important health benefits, but most processed food is very low in fibres because it is lost during processing.<sup>[12]</sup> Many calories digesting and metabolising processed food compared to whole food. Processed food are often high in unhealthy fats. When we replace real food like fish, meat, fruit and vegetable with processed junk food. We increase our risk of illness and poor health.<sup>[13]</sup>

**Pesticides Toxicity**

Pesticide are the chemical substance that are intended to kill pests. In general pesticide is any chemical or biological element bacteria, antimicrobial virus or disinfectant that limits, incapacitates or kill the pest. Pesticide are so commonly used with plant protection product. its use is to eliminate or control variety of agricultural pest damaging the plant and livestock reducing the productivity.<sup>[14]</sup> These are the substance, which are made for the purpose of attracting, reducing and destroying any pest.<sup>[15]</sup> Pesticide is term includes herbicide, insecticide, nematicide, molluscicide, piscicide, avicide, bactericide, fungicide, sanitiser etc.<sup>[16]</sup> Pesticide are used to kill pest but exposure to human also dangerous for human life and occurs disorders.

People expose to pesticide by number of different routes includes occupational, In home, At school, and in their food. Acute effect includes abdominal pain, dizziness, Nausea, vomiting, skin and eye problems, Insomnia, Headache etc. In moderate to severe poisoning abdominal cramp, blurring of vision, small or pin point pupils, inability to breathe, loss of reflex, increase rate of breathing, unconsciousness, death.<sup>[17]</sup>

### Food poisoning

Food Poisoning occurs by contaminated food and water. Nonbacterial food poisoning includes food which is plant or animal origin having poison or *Acarbolic Rasayan*, It is rare type of poisoning.<sup>[18]</sup> Bacterial food poisoning is common in peoples having history of ingestion of common food, simultaneous attack of many person, similar manifestation in majority of cases. Bacterial food poisoning divide in to 3 main types A) Infection B) Toxin C) Botulinism.

- A) Infection – It is mainly occurs from salmonella group of organism. it also includes E. coli, Streptococci, Staphylococci. Symptoms includes Gastroenteritis with toxemia, diarrhoea is foul smelling, fever, muscular weakness.
- B) Toxin – Food poisoning due to presence of enterotoxin formed by staphylococcus. also it may be by E. coli or vibrio, usually poisoning occurs due to consumption of canned or tinned food. Symptoms includes headache, nausea, vomiting, cramp, coma.
- C) Botulinism- It is not infection it is intoxication. *Chlostodium bolulinism* multiply in food and produces exotoxin before it is consumed. Symptoms include vomiting, constipation, thirst, salivation, ocular palsy, coma etc.<sup>[19]</sup>

### DISCUSSION AND CONCLUSION

Now a days peoples are more prone to various type of visha. At present scenario, bad food habits, stressful life style, unpleasant feelings, for preservation food long time-food processing techniques are used etc. Human being affects all these all these bad habits which is dangerous for body.

Common People doesn't know about how the toxins are developed in body and during food processing. Contaminated food and water, bad food habits end with the serious disorders like Aamvisha, Dushivisha, Garvisha etc. Due to some artificial techniques healthy food convert in to toxic food which result in food poisoning. Pesticide toxicity develops while food production and toxicity develops after processed food. These are very common problems existing in community. This study is helpful for the common man physician, students. This study is useful for those person who ate willing to acquire knowledge on this topic. This study tries to identify the toxicity of food on body also try to understand how food toxicity developed disorders affects in peoples. Early identification of toxic components helps to take prevention or less exposure and try to live life Healthy without any contamination.

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