

**ROLE OF DOOSHI VISHA IN EARLY AGEING W.S.R TO
AGRICULTURAL POISONS**

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ABSTRACT

We lived in twenty-first century where poisoning from pesticides became a global concern of public health. Knowingly or unknowingly people are exposed to several types of environmental toxin in day to day life. A study shows that approximately 20,000 people died every year in developing countries for having food laden with pesticide residues. In youngster, the mortality rate is higher. The pesticides and insecticides residues present in the food accumulates in the human body for long period without showing any instantaneous effects. When the accumulation of pesticide residues takes place for a long time, it causes the numerous kind of diseases like heart attack, stroke, cancer, skin allergies, early aging etc. In Ayurveda text above mentioned

things (pesticides and insecticides) comes under *Dooshi visha*.

तेनादितो भिन्नपुरीषवर्णो विगन्धवैरस्यमुखः पिपासी । मूर्च्छन् वमन् गदगदवाग्विषण्णो भवेच्च दूष्योदरलिंगजुष्टः ॥

आमाशयस्थे कफवातरोगी पक्वाशयस्थेऽनिलपित्तरोगी ॥ भवेन्नरो ध्वस्तशिरोरूहाङ्गो विलूनपक्षस्तु यथा विहंगः । (सु. क. 2/27-28)

स्थितं रसादिष्वयथा यथोक्तान् करोति धातुप्रभवान् विकारान् ॥ (सु. क. 2/29)

Due to lesser quantity of pesticides, the potency of *dooshi visha* becomes low and because of avarit kapha it stays in the body for long period of time. *Dooshi visha* is a transformational

state of *visha* and its *Apaki* quality neither get digested nor eliminated but remains in the body for many years. *Dooshi visha* vitiates the *rasaadi dhatus* and produce *dhatu janya vikara*. For the management of accumulated *dooshi visha shodhana* therapy like *vamana*, *virechana* along with Pippalyadi agad can be beneficial.

KEYWORDS: *dooshi visha*, agricultural poison, ageing.

INTRODUCTION

WHO defined healthy Aging “is the results of molecular and cellular damage or changes in the body occurred by a particular period of time at biological level”.^[1] It is a certainly occurring procedure occurs in every and each living being. In Ayurveda classics getting old (*Jara*) is defined as sequential loss of certain biological factors. *Jara* (Ageing) is of two types *Kalaj jara* and *Akalaj jara*. *Kalaj jara* is *swabhava* or *sahaj* in nature (natural aging) where *akalaj jara* is unnatural and untimely (early aging).^[2] *Akalaj jara* (early aging) is commonly seen in the now a days. There are various factors which might be chargeable for *akalaj jara* like improper dietary habits, lack of exercise, stress, smoking, excessive alcohol consumption, genetic disorder and some environmental toxins.^[3] Today’s major concern is related to Agriculture poisons (pesticides and insecticides) which is becoming one of the biggest reason for inducing early aging. As the graph of the population is spreading, the demand of food grains become greater compared to it’s manufacturing. To fulfill the call for of meals grains uses of agriculture poison will increase extensively.^[4] By increasing uses of pesticides fruits, vegetables, poultry and milk are laced with high pesticides residues.^[5] Around 20,000 people died each and every year because of pesticide consumption through their food.

दूषितं देशकालान्नदिवास्वप्नैरभीक्षणशः । यस्माद् दूष्यते धातूस्माद् दूषीविषं स्मृतम् ॥_[6] (सु. क. 2/33)

Dooshi visha is a concept explained by Acharyas which throw light on the changing lifestyle and possibility of exposure of toxins. Small amount of various toxins (pesticides, herbicides, and food additives) accumulate in body for long time does not show any acute illness but increases the chronic health effects including cancer, stroke, heart attack, skin allergies, birth defects, infertility etc. Simplifying this *dooshi visha* in present era, we can compare the same effects of agriculture chronic exposure to human beings with poisons such as OPC, OCC etc. leads to ill health effect. This chronic illness later induced signs of early ageing.

Classical view on *Dooshi Visha*

According to *Acharya Sushruta dooshi Visha* is defined as a poison whether *sthavara*, *jangham* or *krutrima visha* which does not get eliminated from body completely without leaving any residue. That poison is very old, inactivated by anti-poisonous things, destroyed partially by *davanal*(forest fire), *vata*(wind), *aatap*(sunlight) or *swabhavato va gunaviprihina* (nature is poor in its qualities) attain the name *dooshi visha* because of low potency it does not kill the person quickly and remains in the body for many years covered by *kapha*.^[7]

When *dooshi visha* stayed in the *rasa* and other *dhatu*s(tissues) for long period of time, it give rises to diseases due *dhatu dushti*.

Dhatu and dhatu dustijanya lakhsana.^[8]

<i>Dhatu dushti</i>	<i>Dhatu dustijanya vikara</i>
1. <i>Rasa dhatu</i>	<i>Aruchi, Ajirna, hridayaroga, vali, palit</i>
2. <i>Rakta dhatu</i>	<i>Kushtha. Visarpa,</i>
3. <i>Mamsa dhatu</i>	<i>Mamsarbud</i>
4. <i>Meda dhatu</i>	<i>Granthi, madhumeha, stholya</i>
5. <i>Asthi dhatu</i>	<i>Adhiyasthidantiadi vikara</i>
6. <i>Majja dhatu</i>	<i>Tamodarshan, murchha</i>
7. <i>Shukra dhatu</i>	<i>Klaibya</i>

Current significance of *Dooshi visha*

Agricultural poisons are varied group of agents used to control livings organisms that pose health or economic threats. They can be derived manmade (synthetic) or naturally occurring (biological).^[9]

Classifications

1. Pesticides- organophosphates, organochlorines
2. Herbicides- paraquat, bromoxynils
3. Rodenticides- thallium sulfate, zinc phosphide
4. Fungicides- aluminum phosphide, ethylene dibromide

Organophosphorus compounds

Organophosphorus compounds used as pesticides, insecticides on large scale in agriculture enterprise as well as commercially. Commonly used are malathion, diazion (tick). Their absorption can be taken by inhalation, through the skin, mucous membrane and GI tract. When sprayed in air, absorption in the plants occurs through leaves and stems.

Organochloride compounds

Organochloride compound used as weed killers, herbicides in farms by farmers like DDT, gamma-hexachlorides. They can be absorbed through skin, orally and via inhalation. They are highly lipid soluble.

Chronic exposure may lead to following symptoms like vomiting, nausea, salivation, diarrhea, hoarseness of voice, mental confusion, loss of weight, weakness, ataxia, tremors, oligospermia and even increased tendency for leukemia.^[10]

Co-relation between *dooshi visha* and agriculture poison

As mentioned above that *sthawara*, *jangama* and *krutrim visha* never get eliminated from body completely and always leaves residue which get accumulated and remains for years. Because of *kapha avarna dooshi visha* become low in potency. This *dooshi visha* aggravated by the factors of *desha*, *kala*, *anna* and *divaswap* and further it vitiates *rasadi dhatus* and produced *dhatu janya vikara*.^[11] This *rasadi janya vikara* induced early signs of ageing like *hridayaroga* (heart disease), *vali* (premature appearance of wrinkles), *palit* (grey hairs), *Mamsarbud* (tumor). Being comparable in nature the pesticide residues additionally get amassed within the body due to which it can be considered as *dooshi visha*. The intake of pesticides in regular food habits is very low in quantity due to which it does not show any ill effect at that time. But the regular consumption of small amount of pesticides through food will accumulated and remains for years in the body. This cumulative poison entered through blood stream and retention of these toxins results toxemia which slowly affects the vital systems and immune system and causes various diseases like stroke, cancer, infertility and early ageing.

CONCLUSION

In present era, with increasing population demand of food grains also increasing for survival of human being. With more production comes more measures of protection of crops hence, the answer is more pesticides. Unknowingly Pesticide has become a part of the daily food intake. Constant accumulation of pesticides residue and existence for many years in human body produced major health concerns which is quiet similar to *dooshi visha*. Due to small amount of pesticides residues cumulation occurs and after getting favorable condition like *desh* (vulnerable habitate), *kala* (season), *anna* (toxic food) and *divaswap* (daytime sleep) it vitiates *rasadi dhatus* and cause *rasadi dhatu dhusti* which produced disease manifestation at the place where the aggravated doshas, circulating all over the body become obstructed due to

abnormality of the channels. This *dooshi visha* slowly affects the vital system and immune system and promotes the early ageing. For the elimination of *dooshi visha* acharya mentioned the treatment of *sodhana* and uses of *agad*. For *sodhana*, after *snehana- swedana, vamana and virechana* is beneficial along with the *pippalyadi agad*.^[12]

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