



Science

## “AYURVEDIC MANAGEMENT OF CUMULATIVE TOXICITY (DUSHI VISHA)”: A REVIEW

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### Abstract

Dushi Visha is cumulative poisons which retains and accumulate within the tissues of human beings due to exposure seems prolonged period persistently. It may be originated from inanimate, animate or artificial source of poisons. The clinical manifestation, Complication & Management of Dushi Visha has been found in various Samhitas, but matter is scattered. This study has been taken a serious effort to present a management of cumulative Toxicity with special reference to Dushi Visha with scientific justification.

**Keywords:** Dushi Visha; Cumulative Poison; Ayurvedic Management; Review.

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### 1. Introduction

*Dushi visha* is one of type of chronic toxicity due to accumulation of either Inanimate or animate or artificial poisons which exposed since prolonged period continuously due to less potency and encapsulations within lipophilic tissue it remains in the living body for prolonged periods and produced chronic serious /non serious complications when suitable factor influenced. In current era there are so many poisonous materials has been available which have such a nature of accumulations within the body are prolonged periods. Metals and metallic compounds, Pesticides and some food additives have found a nature of accumulations within the living body when it exposed since prolonged period persistent. Over one billion human has been exposed to elevated levels of toxic metals and metalloids in the environment. This is Review Article in which etiological factors of *Dushivisha* and management of *Dushivisha* has been evaluated, elaborated and discuss in detail as per current era.

## 2. Aim and Object

- 1) To discuss, evaluate & elaboration of Cumulative Toxicity in Human with special references to *DushiVisha*.
- 2) To discuss, evaluate & elaboration of *Ayurvedic* Management for Cumulative Toxicity

## 3. Material and Method

This article is based on personal experiences & textual review. Material related to Cumulative Pesticides with special references of *DushiVisha* was collected. All the *Brihatrayi*, *Laghutrayi* and available commentaries of those has reviewed. Modern Texts & various websites to collect information on the relevant topics were referred.

## 4. Conceptual Study

**Definition:** *Acharya Sushruta* has stated that a part of *Sthavar* (Inanimate), *Jangam* (Animate) or *Kritrim* (Artificial) poison, which accumulated and cannot be excreted from body completely due to its chronic and cumulative nature or becomes less potent after digestion or counter action of antidotes & stays in the body for a prolong period and vitiating the body slowly is called *Dushi Visha*.<sup>1</sup>

Table 1: Influencing Factor for Bioaccumulation of *DushiVisha*

Sr. No.	Feature	<i>Sushrut</i> <sup>2</sup>	<i>Ashtang Hradaya</i> <sup>3</sup>	<i>Bhav-Prakash</i> <sup>4</sup>	<i>Vang-sen</i> <sup>5</sup>
1	Chronic Poison ( <i>Jirna Visha</i> )	✓	✓	✓	✓
2	Ineffective by antidote ( <i>Aush-odhirbhihat</i> )	✓	✓	✓	✓
3	Dries by Internal Heat ( <i>Agni</i> )	✓	✓	✓	✓
4	Dries by <i>Vata</i> Dosha	✓	✓	✓	✓
5	Dries by Sun Light ( <i>Atapa</i> )	✓	✓	✓	✓
6	Nature of Poison ( <i>Swabhav</i> )	✓	✓	✓	✓

Table 2: Aggregative Factor of *DushiVisha*

Sr. No.	Feature	<i>Sushrut</i> <sup>6</sup>	<i>Ashtang Sangrah</i> <sup>7</sup>	<i>Ashtang Hradaya</i> <sup>8</sup>	<i>Yog-Ratnakar</i> <sup>9</sup>	<i>Bhav-Prakash</i> <sup>10</sup>	<i>Vang-sen</i> <sup>11</sup>
1	Region ( <i>Desha</i> )	✓	✓	✓	✓	✓	✓
2	Indigestion ( <i>Ajeerna</i> )	✓	✓	✓	✓	✓	✓
3	Cold & Cloudy	✓	✓	✓	✓	✓	✓

	Weather ( <i>Kala</i> )						
4	Day Sleep ( <i>Divya-Swapna</i> )	✓	✓	✓	✓	✓	✓
5	Unsuitable Food ( <i>Ahita Prashana</i> )	✓	✓	✓	✓	✓	✓

Table 3: General Clinical Features of *DushiVisha* as per Various Acharya

Sr.	Feature	<i>Sushrut</i>	<i>Charak</i>	<i>Astang- Sangrah</i>	<i>Ashtang Hradaya</i>	<i>Yograt- nakar</i>	<i>Bhavprakash</i>	<i>Vangsen</i>
1	Inebriant after Food ( <i>Annamada</i> )	✓	-	-	-	✓	✓	✓
2	Indigestion ( <i>Vipaka</i> )	✓	1.	-	-	✓	✓	✓
3	Loss of Taste ( <i>Arochak</i> )	✓	-	-	-	✓	✓	✓
4	Patches & Rashes on Skin ( <i>Mandal- Kotha</i> )	✓	✓	✓	✓	✓	✓	✓
5	Delusion ( <i>Moha</i> )	✓	-	-	-			
6	Wasting of Tissue ( <i>Dhatukshaya</i> )	✓	-	-	-	✓	✓	✓
7	Edema of Feet & Hand ( <i>Pada- Karasya Shoph</i> )	✓	-	-	-	✓	✓	✓
8	Ascites ( <i>Dusyodar</i> )	✓	-	✓	✓			
9	Vomiting ( <i>Chhardi</i> )	✓	-	✓	✓	✓	✓	✓
10	Lose Motion ( <i>Atisar</i> )	✓	-	✓	✓	✓	✓	✓
11	Discoloration of Body ( <i>Vaivarya</i> )	✓	-	✓	✓			

### Complication of *DushiVisha*<sup>12</sup>

Fever , Burning, Hiccup, Flatulence, Edema, Diarrhea, Unconsciousness, Heart Disease, Insanity & Tremor these are the complication of *DushiVisha*.

Table 4: Management of Cumulative Pesticides w.s.r.to *DushiVisha*

Sr	Procedure & Drugs	Sushrit	Charak	Ashtang Sangrah	Ashtang Hrudaya	Yograt nakar	Bhavprakash	Vangsen
1	Sudation ( <i>Swedan</i> )	✓	-	✓	✓	✓	✓	✓
2	Induced Emesis ( <i>Vaman</i> )	✓	-	✓	✓	✓	✓	✓
3	Induced Purgation ( <i>Virechan</i> )	✓	-	✓	✓	✓	✓	✓
4	( <i>Ikshvaku Kalp</i> )	-	✓	-	-	-	-	-
5	Mild Purgative ( <i>Kashyopokta Virechak</i> )	-	-	✓	-	-	-	-
6	( <i>Sudha Kalp</i> )	-	✓	-	-	-	-	-
7	<i>DushiVishari Agad</i>	✓	-	✓	✓	✓	✓	✓
8	Blood Letting ( <i>Sira Karma</i> )	-	✓	-	-	-	-	-

All the *Acharya* except *Charak* mentioned the Sudation followed by Induced Emesis or Induced Purgation or both able to excrete the *DushiVisha* from human body by means of purification and then administration of *DushiVishari Agad* after conciliating step (*Samsarjan Krama*). *Acharya Charak* has suggested Bloodletting & Medicine prepared from milky juice of *Euphorbia*, while *Acharya Vagbhat* has suggested Mild Purgative which is already mentioned in *Kashyap Samhita* in addition.

## 5. Discussion and Conclusion

Cumulative pesticides which persistently accumulate in human being and exist for several years produced long term hazards nearly similar to *Dushivisha*. Most of the clinical manifestation & complication of the cumulative toxicity of pesticides are mimic with *DushiVisha* like Nausea, Vomiting, Diarrhea, loss of Appetite, Exhaustion, Dizziness, Headache, Muscle Weakness, Muscle Cramp, Tremor, Seizure, rashes & patches on Skin, dermatitis, Insanity and Impotency. Cancer is the most danger & probable major complication of cumulative toxicity of pesticides though it is not mentioned as manifestation or complication of *DushiVisha* by any of *Acharya* in *Ayurveda*. *Dushivishari Agad* having herb & mineral has antitoxic effect. It also helps to balance the body essence as *Acharya* mentioned that for complete health, body essence may be balance. As the *Kashyopokta Virechak Kalpa* having mild purgative property in therapeutic doses, it helps to excrete metabolic toxicant from body. Cumulative toxicity should be managed by method of Bio Purification (Induced Emesis & Purgation) along with herbal & herbomineral products, which has already mentioned in *Ayurveda*.

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