Role of *Dushivisha* w.s.r. to Allergic Skin Diseases

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**ABSTRACT**

The Today's life is far from the law of nature. As we all know that it is the age of advanced technology, that competing with the natural and organic world, making our life embedded in to the test tube of toxins. Use of intoxicating beverages, canned food, irregular eating and sleeping habits, food adulterants, preservatives, additives, fruit ripening chemicals, pesticides, synthetic drugs have taken modern man to a world, where immunity is declining day after day and many diseases evolving. These are various forms of toxins which enter in body through various routs if not excreted completely and stay inside the body will converted into *Dushivisha*. Allergic skin diseases are major problem affecting people of all age groups which are due to hypersensitivity of body's immune system to certain physical or chemical agent. The concept of *Dushivisha* in relation with allergic skin diseases are clearly mentioned in Charaka Samhita, Sushruta Samhita and other ancient ayurvedic texts. Some of the skin problems caused by *Dushivisha*, which are described in Samhitas are *Kustha, Mandal, Visharpa, Bhinna Varna* (discoloration of skin), [Su.K.Cha.2/30-31] Shonit Dushti, Kitibha and Kotha.[Cha.Chi.23/31]. The cause of all these diseases is *Dushivisha* which get aggravated due to its provoking factors like exposure to eastern wind, indigestion, cold, daytime sleep and on taking unwholesome food etc. [A.H. U.35/37] All these things suggested, the important role of *Dushivisha* in allergic skin diseases.

**Key words:** *Dushivisha, Allergic Skin Diseases, Avyadhisahtwa, Ojovyapad, Kotha*

**INTRODUCTION**

The Allergic skin disease is the common problem affecting the people of all age groups. Skin allergy is an adverse response by the body's immune system to an allergen, when it comes into contact with the skin or when it is inhaled or ingested. Allergic skin diseases include urticaria (hives), Allergic contact dermatitis, eczema, angioedema etc. The severity of the response is variable depending upon its aggravating factors. As we all know that it is the age of advanced science and technology, that competing with the natural and organic world, making our life embedded in to the test tube of toxins. We are daily getting exposed to different kinds of toxins through various routes directly or indirectly in the form of food adulterants, preservatives, additives, fruit ripening chemicals, pesticides, synthetic drugs, through polluted air-water and so many things which are still unknown to us. All these are the various forms of *Garavisha / Kritrima Visha* which have been accumulating in our body since birth and get shelter in to cellular and organ level, becoming the raw material of cell structure. They disrupt the natural biochemistry of living system due to which immunity is subsided day by day resulting in conditions of different allergic reactions including allergic skin diseases.

The concept of *Dushivisha* in relation with allergic skin diseases are clearly mentioned in Charaka Samhita, Sushruta Samhita and other ancient ayurvedic texts. Some of the skin problems caused by *Dushivisha*, which are described in Samhitas are *Kustha, Mandal, Visharpa, Bhinna Varna* (discoloration of skin), [Su.K.Cha.2/30-31] Shonit Dushti, Kitibha and Kotha.
[Cha.Chi.23/31]. The cause of all these diseases is Dushivisha which get aggravated due to its provoking factors like exposure to eastern wind, indigestion, cold, daytime sleep and on taking unwholesome food etc. [A.H. U.35/37] All these things suggested, the important role of Dushivisha in allergic skin diseases.

Concept of Dushivisha and its causes

The conceptual thoughts about Dushivisha is that, any poison whether of animal, vegetable or chemical origin and self-generated toxins produced in the body is not properly expelled out or is partially neutralized by the anti-poisonous remedies or suppressed by environmental factors like the fire, the wind, the sun etc. or is of mild potency by nature (Visha devoid of any quality out of its 10 qualities), it gets deposited in the tissues and assumes the form of Dusivisha. Because of its mild potency, it will not exhibit any symptoms and may remain latent for years because of Kaphavarana (enveloped by Kapha) [Su.K.Cha.2/25-26] and aggravated when get exposed to its provoking factors. While go through the various ancient texts including traditional Visha Vaidya Granthas, the causative factors of Dushivisha can be summarized as Sthavara Visha (inanimate poisons), Jangama Visha (animate poisons), Kritrima Visha (artificial poisons), Viruddhahara (incompatible foods), Ajeerna (indigestion), Vegavarodha (suppression of natural urges), Manasika Bhava (psychic factors).

Sthavara Visha includes toxins of plant origin and toxic minerals which on repeated exposure led to cumulative toxicity and corresponding toxic manifestations. Chronic exposure of mercury, arsenic leads to skin diseases.

Jangama Visha includes animal toxins that exert their cumulative effect by means of their enzymatic activity or proteolytic activities that damage tissue integrity in a long run.

Kritrima Visha or concocted poison has more importance in the present Scenario as we are exposed to a mixture of chemicals from multiple pathways. It is also called Gara Visha (Artificial poison) [A.H.U.35/4]. Combination or mixture of parts of the body and excreta of different animals, incompatible drugs, ashes and poisonous substances of mild potency are known as Gara Visha [A.H.U.35/49].

Various sectors for this exposures are adulterization, Cosmetics, food additives, sweeteners, preservatives, Psychoactive drugs, Occupational poisoning, Toxicity by improper preparation of different Bhasmas. All these have the potential to produce toxicity. If such toxicity produced by Garavisha in the body is not properly expelled out and if remain inside the body for long time can be termed as Dushivisha.

Viruddh Ahara is incompatible combination of substances like diet, time, and processing etc. 18 types of Viruddhaahara is mentioned by Acharya Charaka results in decreased assimilation of products of digestion. Virudhaharajanaya Visha has only mild potency and can be included in Garavisha.

Virudhahara (Incompatible food), Adhyashana (over eating) and Ajirnashana (taking food in indigestion) produce symptoms similar to that of Visha. [A.H.Su.8/13] Acharya Vagbhatta clarifies in the context of Virudhaharas that the ingestion of incompatible food produces toxicity and harmful effects on the body which on long run converts into Dushivisha. The diseases resulting from Viruddhahara as mentioned by Charaka have striking similarity with that of Dooshivisha Lakshana including skin diseases like Visphota, Kushta etc.

Ajeerna and Agnimandya - Almost all diseases are caused by impaired digestive capacity. Viruddhahara is one of the important causes for vitiation of Agni. This vitiated Jatharagni does not digest even the lightest of food substances resulting in indigestion (Ajirna).[Ch.Chi.15/44] Aama is a form of Ajirna predominant in Kapha Dosha. Importance of Aama in causing Dushivisha is that Viruddhahara and Ajirna will lead to a condition called ‘Aama-Visha’ that is equivalent to poison. If the Aama Visha is of mild potency or subsided by immune response or partially neutralized by other factors, it gets lodged in the tissue and assumes the form of Dusivisha.

Natural urges like faeces, urine etc. are to be timely expelled from the body. Any delay in the clearance of
these bodily wastes will result in the accumulation of toxic contents present in them. Once these toxic products are absorbed it may manifest as functional disturbances in the body.

Social and environmental stressors can precipitate illness in vulnerable people. Their effect is modified by how they are perceived by the individual. Although some may be so severe that they precipitate illness in most people.

Modern concept of Allergy and its role in manifestation of Allergic skin diseases.

The word Allergy means hypersensitivity to a physical or chemical agent. It is defined as when an antigen, which is not harmful in itself, causes an immune response and reaction, which given rise to symptoms and disease in a few predisposed individuals only. The immune response/ Hypersensitivity reaction is classified into four distinct types. Generally, mechanism of type I hypersensitivity reaction or IgE mediated reaction is responsible for allergic skin diseases.

Various Allergens in Allergic skin diseases. Any substance that produces the manifestations of allergy is called allergen. It may be an antigen, protein or any other type of substance. Even physical agents can develop allergy. Following are the common types of allergen involving in manifestations of Allergic skin diseases.

Pathophysiology of Allergic skin diseases

When body is exposed to allergens, the IgE immunoglobins are produced; these immunoglobins bind with surface receptors of mast cells and circulating basophils where they do not harm until re-exposed to the same allergens. The mast cells are believed to be the major effector cell in Allergic skin reactions. In the skin, mast cells are located in the dermis and are distributed about blood vessels, lymphocytes, nerves and appendages.

During the subsequent exposure of the body to the same allergen, the allergen IgE antibody reaction takes place. This leads to degranulation of mast cells and basophils with the release of granules containing histamines and some chemical mediators like cytokines, Prostaglandin D (PGD), leukotrienes C etc. 2 2 4 Histamine stimulates nerve endings, contracts smooth muscles and increase vascular permeability in the skin causes endothelial cell contraction that allows vascular fluid to leak between the cells through the vessel wall, contributing to tissue oedema, and wheal formation.

Allergic skin diseases and its symptoms

There are several types of allergic skin conditions. They are often itchy and red and may appear scaly, bumpy or swollen. Here some examples of skin Allergic conditions are given

Atopic Dermatitis (Eczema) - Symptoms includes, Dry, red and itchy skin, Rashes on the face, inside the elbows, behind the knees, and on the hands. It is more common in young infants and those who have a personal or family history of allergy.

Contact Dermatitis - Contact dermatitis is caused from skin contact with a substance that causes a rash-like reaction. People react to a variety of chemicals, including cosmetics, hair dye, metals, topical medications and dental materials. A contact dermatitis rash may look like atopic dermatitis, but the rash is typically located only in the area of contact with the offending chemical. Common locations include the face, especially the eyelids, neck, hands and feet.

Urticaria (Hives) - It is transient eruptions of circumscribed edematous and usually itchy swelling of the dermis. Red, itchy, raised areas of the skin that can range in size and appear anywhere on your body.

Angioedema (Swelling) - It is a swelling of the deeper layers of the skin that sometimes occurs with hives. Angioedema is usually not red or itchy. The areas often involved are the eyelids, lips, tongue, hands and feet.

Role of Dushivisha in Allergic skin diseases. The prime factors taking part in the pathogenesis of Allergic skin diseases are

Nija and Bahya (Agantuja) Gara Visha: Nija Gara Visha formed in the body by Virudhahara and Agnimandya. These causes (Nidanas), by interactions with intrinsic
factors produce toxicity of mild potency (endo allergens). Simultaneously body is exposed to Bahya Gara Visha in the form of different food preservatives and additives (food allergens), various drugs like NSAIDs, ACE inhibitors, penicillin (drug allergens), carbonated cold drinks etc. acts as exo allergens. All are on long term exposure converted into Dushivisha.

**Dushivisha** - According to Acharya Charka, Dushivisha on vitiation deranges Rakta Dhatu and produces various allergic skin manifestations, beyond this Acharya Sushruta mention that it produces respective Dhatupradoshaja Vikara in which it gets lodge. [Su.K.Cha.2/29] It means, when Dushivisha lodges in Rakta Dhatu it produces Raktapradoshaja Vikar on exposure to its provoking factors. Symptoms produced by Dushivishaya when it gets vitiates such as Mandal, Kotha, Vaivarnya, various Kushta Vikaras, and many Shonitadushti Vikara.

**Dushta Rakta (vitiated blood)** - Improperly developed Mamsa, Shonita and Asthi are responsible for reduced Vyadhikshamatva. [Ch.Su.28/7]. The healthy condition of these three Dhatus will naturally maintain equilibrium of the three Dosha as they have Ashrayashrayibhava. Vitiated Rakta produces derangement of Pitta and vice versa. Vitiation of Rakta Dhatu by Dushivisha is specifically emphasized Acharaya Charaka resulting in various Shonitajya Vikara which has vital role in Allergic skin diseases.

**Avyadhishatva (Immune disorder)** - The Visha has opposite qualities of Ojas and has special affinity towards Ojas.[A.H.U.35/8]. Hence Dushivisha on vitiation causes an altered immune response by producing symptoms of Ojavyapada. As stated, earlier Dushivisha vitiates all the Rasadi Dhatu, vitiation of Rasadi Dhatu due to Dushivha when it exposed to its aggravating factors. This is occurred first as Rasa is the Aadya Dhatu. When Dushivishaya vitiates Rasadi Dhatu, it ultimately vitiates its Mala also. Here Prakrit Kapha is the Mala of Prakrit Rasa which get vitiates due to Dushivisha. So that status of Kapha, Rasa and Oja is depend on Dushivisha.

Excellence of Malarupi Prakrit Kapha and ultimately the Oja (Prakrit Kapha), which brings excellence in the Bala or Vyadikshmatva all are depend on Excellence of Rasa.

**DISCUSSION**

Unwholesome diets and drugs with mutually contradictory characters with that of normal tissue elements initially produce toxicity in the blood. Conversion of Viruddhahara to Gara Visha and transformation of wholesome food to Annavisha due to Agnimandya and Ajirna acquires toxic potency which is of mild potency. The toxicity produced by this unwholesome diet vitiates Rakta. By the potency of Visha it reaches Rakta and with its properties it deranges Rakta Dhatu. Because of the insufficient strength of Garavisha or because of the Vyadhivikshamatva, the toxicity might be partially neutralized or suppressed. The Visha of mild potency gets deposited in the Rakta Dhatu and assumes the form of Dushivisha. The suppressed toxin gets enveloped by Kapha and might remain latent. Potency of the Dushivisha aggravates in favorable conditions like Abhisyandi food, Ajirna, day sleep, Dushit Anna, Dushit Desha, Dushit Kala like Pragwat, cold etc. [A.H.U.35/37] [Su.K.Cha.2/33]

Acharya Dalhana explains that stressful and strainful activities also impart their effect or accentuates Dushivisha which is responsible for vitiation of Kapha, Pitta and Rakta and also the dysfunction of Ojas (Avyadhisatwa) producing various allergic skin diseases. When the potency of the toxin gets enfeebled, the Visha resolves back into the Rakta Dhatu. Again, in favorable conditions the symptoms of allergy resume. Correlating all these things with modern pathology of Allergic skin diseases we can say that, unwholesome substances have properties opposite to the tissues and also the basic components, cells. The unwholesome substances can be considered as antigens, which can react with the antibodies (Dhatus). When an unwholesome substance reaches the blood, the resistance and the immune system act on them. The cytokines get activated and produce immunoglobulins which in a healthy individual neutralize the antigens. In ‘Avyadhisaha’ individuals, the IgE produced by the activation of cytokines (1L-5) instead
of neutralizing the antigens, gets sensitized and binds to the mast cells and basophils. They act as a mild toxin (enveloped by Kapha) or Dushivisa. They remain latent till next exposure to the antigen (unwholesome).

During the subsequent exposure of the body to the same allergen, the allergen IgE antibody reaction takes place. This leads to degranulation of mast cells and basophils with the release of granules containing histamines and some chemical mediators like cytokines, Prostaglandin D2 (PGD), leukotrienes C etc. Histamine 2 4 stimulates nerve endings, contracts smooth muscles and increase vascular permeability in the skin causes endothelial cell contraction that allows vascular fluid to leak between the cells through the vessel wall, producing symptoms of allergic skin diseases like tissue oedema, pruritic wheels (wheal and flare up reaction).

CONCLUSION
From the above discussion it is clear that, prevalence of allergic skin diseases is very high. As we are exposed to various toxins daily, it is necessary to understand the role of Visha in pathology of various diseases. Dushivisha plays an important role in manifestations of allergic skin disease. So that treatment of Dushivisha likes Vaman, Virechana, administration of Dushivishari Agada and drugs having Vishghna as well as Kushtghna properties will helpful in defeating allergic skin diseases.

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How to cite this article: Bhanu Pratap Gaur, Vikas Mishra, Jai Kumar Singh. Role of Dushivisha w.s.r. to Allergic Skin Diseases. J Ayurveda Integr Med Sci 2023;10:118-122. http://dx.doi.org/10.21760/jaims.8.10.17
Source of Support: Nil, Conflict of Interest: None declared.