

Diet in Psoriasis - An Ayurvedic Perspective

Sanjeev.S.Tonni¹, Shamshad Begum²

¹ Asst. Prof., Dept. of Swasthavritta, ² Scholar, Dept of Panchakarma, K.L.E.U's
Shri.B.M.Kankanawadi.Ayurveda Collage & Hospital, Shahapur, Belgaum- 590003,
Email: sanjeevtoni@yahoo.com
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Abstract:

Psoriasis is a non-infectious chronic inflammatory disease of skin characterized by well-defined erythematous plaques with silvery scales having chronic fluctuatory course affecting both sex and different age groups. In India, its prevalence varies from 0.84% - 6%. Psoriasis can be correlated to different varieties of *Kushta* (Skin diseases) like *Eka Kushta*, *Kitibha Kushta* or *Sidhma Kushta* due to the resemblances of signs and symptoms. The etiological factors explained for *kushta* can be classified as *Aharaja Nidana*, *Viharaja Nidana* and *Sidvritta Apalana*. Each *Nidana* plays an important role in the manifestation of the disease. As Ayurveda emphasizes *Nidana Parivarjana* as the first line of treatment to treat a disease, so it is essential to prevent the manifestation of the disease and further to check the progression of the disease through *Pathya* and *Apathya* which are the unique contributions of Ayurvedic science. The objective of this review is to assess dietary factors which play a role in psoriasis. Furthermore, the risk of dietary factors & their interactions in psoriasis is discussed. In this review, dietary factors which play a role in psoriasis are assessed and their potential benefit is evaluated.

Keywords: Psoriasis, *Kushta*, *Pathya* -*Ahara Vihara*, *Apathya*, *Sadvritta*.

Introduction:

Psoriasis is a one of the most common dermatological problems of unknown etiology. It is a Chronic, genetically determined, inflammatory and proliferative disease characterized by dry, well-circumscribed, silvery scaling papules and plaques, present over extensor surfaces and scalp of various sizes with spontaneous remission, relapse and seasonal variation [1]. Its prevalence in different population varies from 0.1%-11.8% [2]. The pathogenesis of Psoriasis involves both genetic predisposition including the influence of genes of the Human Leucocyte Antigen Complex and T-Cell mediated immunological mechanisms [3]. In Ayurveda, all skin diseases can be included under the term *Kushta*. The word *Kushta* means that which makes ones skin look disgraceful. Due to *Mithyaahara*, *Vihara* and *Karma*, the *Tridoshas* get

vitiated affecting the *Twak*, *Rakta*, *Mamsa* and *Ambu Dushyas*, thus producing *Kushta*. It is noted as one of the '*Ashta Mahagada* [4]. Though the contemporary science does not explain the specific cause for the manifestation of psoriasis, but *Ayurveda* has clearly described the causes leading to *Kushta* [5] as *Aharaja*, *Viharaja Nidanas*, *Sadvritta Apalana* and also emphasized that, impeding these *Nidanas*, and following the *Pathya* could help the future generations to avoid *Kushta* and also to check its progression and remission for those already afflicted with. An objective of this review article is to critically analyzing the various etiologies ie, *Nidanas* & interns its pathogenesis in bringing the disease psoriasis. Here all the classical references related to causation of *Kitibha/eka kushta* (psoriasis) are elaborated in detail.

Etiology: The etiological factors of psoriasis

(*Kushta*) may be classified into following groups:

A. *Aharaja* diet and dietetic pattern

B. *Viharaja* faulty lifestyle

C. *Sadvritta apalana/Achara rasayana/Kulaja nidana*- Not following the code of conduct, genetic predisposition

(A) *Ahara Hetu* (Dietary causes): The main causative factor of psoriasis (*kushtha*) is *Viruddha Ahara* (incompatible) and *Mithya Ahara* (improper diet).

1. *Aharaja Nidana* can be divided as:-

Type of food

Quantity of food

Quality of food

Food incompatibility

Faulty dietetic habit

Importance of relationship between Skin and GIT [6]: Samitz M.H. represented two type of relationship between skin and gastrointestinal track.

A. Embryogenic relationship:

Skin and GIT have a common origin from the embryoblast. As the development precedes the cranial end of foregut and the blind caudal end of the hindgut, eventually shares on ectodermal component. The former gives rise to oral epithelium and the later to the epithelium of the lower part of the anal canal. Thus, many skin disorders concomitantly involve gastrointestinal membrane and epithelium, including all connective tissues. The dermis and sub-mucosa of gut arises from mesenchymal cell. The glandular part of the skin and GIT develops from common histogenic process.

B. Biochemical relationship:

Skin disease can be caused by the primary disturbance of common biochemical mechanism, or can be secondary to general metabolic alterations, induced by dysfunction of these systems.

1. *Atyashana*:

Taking excessive amount or constant usage of certain foods like *Navanna* (new formed rice) *Guru Anna* (heavily digestible foods), *Amla Rasa* (citrus fruits), *Dugdha* (She buffalo milk), *Dadhi* (curd), *Matsya* (fish), *Guda* (jaggery), *Tila Taila* (unrefined sesame oil), *Kulattha* (Horse gram), *Masha* (black

gram), *Nishpava* (field beans), *Ikshu pishta* (food articles (sweets) prepared by sugars), *Pishta-Vikara* (carbohydrate rich foods)[7].

2. *Mithya Ahara*: Improper food habits are another major causative factor of *Kushtha*. There are certain a code of conducts of eating which when not followed is called *Mithya ahara*. The codes of conduct of eating have been termed as “*Ashtaaharavidhi vishesha Ayatani*” [8]

3. *Viruddha Ahara*: “*Viruddha*” or “*Vairodhika*” is the technical term for incompatible or antagonistic. All substances which act as antagonist to normal *Dhatu* (tissues) of the body are to be regarded as '*Viruddha*' in *Ayurveda* [9]. According to *Ayurveda*, *Ahara* can sometimes become fatal just like the poison & in some case it may become *Gara Visha* (artificial poisoning) in long run [10]. Type of food combination which directly produce the disease *Kushtha* are described here as per the classics.

Fish with Milk: It is the example of *Samyoga* and *Veerya Viruddha*.

Gramya, Anupa or Audaka Mamsa with Milk: It makes *Samyoga Viruddha*. Diet consisting mostly of cereals like *Hayanaka, Yavaka, Chanaka, Udalaka, Kodrava, Kola, Kulattha, Masha, Atasi* or *Kusumbha* with milk, curd, butter milk, are *Viruddha*.

4. *Vishamaashana*: Taking food at irregular time is called *Vishamaashana*. *Vishama Ashana* is best known to produce *Vishama Agni* [11].

5. *Asatmya Ahara*: Taking food which is not homogenous and not pertaining to the person is called *Asatmyaahara* [12].

6. *Ajirne Adhyashana*: Intake of food in state of indigestion is called *Ajirne Anne*. According to *Acharya Charak*, taking food in state of indigestion is best known to cause *Grahani Dushti* [13].

(B). *Vihara Hetu* (Recreational activities):

All kinds of activities done physically, vocally or mentally are considered as *Vihara*. *Mithya Vihara* means improper activities. The activities opposite to '*Swasthavrita*' (Personal health maintenance activities) are the '*Mithya Vihara*'. The *Mithya Vihara* [14] is the chief causative factor of many diseases but it has been considered as main

cause for the *Kushta*.

Apathya vihara: *Divasvapna* (day sleep), *Maithuna* (sexual intercourse), *Vegadhaarana* (suppressing the natural urge of the body), *Paapakarma* (sinful acts), *Tapa sevana* (excessive exposure to sun rays), *Swedana* (fomentation) are to be better avoided. *Atidhukha* (excessive worry/grief), *Ati Vyayama* (excessive physical exercise) are not to be done [15].

(C) *Achara Hetu* (Behavioral factors):

This is a very important factor and has been mentioned in *Ayurveda* that behavioral misconduct, antisocial activities, sinful activities and other punishable activities are considered under this heading. These *Nidanas* are the *Apathyas* (the wholesome drugs and regimen which adversely affect the body and mind) for this disease, so discontinuing these *Apathya* and following the *Pathya* related *Ahara*, *Vihara* and *Sadvritta Palana* explained below would prevent the manifestation of *Kushta* or to avoid the progression of the same [16].

a) *Pathya Ahara*:

Acharya Charaka has defined '*Pathya*' as - they are the wholesome drugs and regimen which do not adversely affect the body and mind [17].

The patient has to consume *Laghu Anna* (light food articles), *Tikta Shaaka* (bitter vegetables), *Purana Dhaanya* (old cereals & grains), *Jaangala Maamsa* (unsaturated animal fat), *Mudga* (greengram), *Patola* (snake guard), *Purana Shaali* (old stored rice), *Shashtika Shaali* (variety of rice explained in *Ayurveda*), *Yava* (Barley grain), *Godhuma* (wheat grain), food and ghee prepared by *Triphala* & *Nimba* (*Neema*). *Khadira Jala Pana* (Drink prepared from the extraction of (*Acacia* catechu plant), & *Aushadha Samskruta Takra* (medicated buttermilk).

b) *Pathya Vihara*:

They are the wholesome drugs and regimen which do not adversely affect the body and mind [17]. *Abhyanga* with *Karanja taila* (massage with *Pongamia pinnata* oil), *Parisheka* (type of medicated bath where in water is sprinkled on the body), *Avagaha* (bath) with *Khadira Kashaya* (*Acacia* catechu plant) [18], *Brahmacharya* abstinence from

sexual activities as it may vitiate *Vata dosha*.

Kshapaashaya sleep only during the night. Sleep during the day vitiates.

Vegaavarodha varjana to avoid natural urges. This again vitiates *Vata dosha*.

Uccha vachan varjana to avoid loud speaking which again vitiates *Vata dosha*.

Shoka, krodha varjana to avoid anger or anxiety. They viliate *Vata* and *Pitta doshas*.

Hima Aatap varjana to avoid exposure to excessive heat or cold.

Pravaata varjana to avoid walking in open air.

Vyaayama varjana to avoid vigorous exercise.

Yaanadhwa varjana to avoid journey or excessive walking.

Samsthitah use of suitable posture.

Dhuma-rajasi varjana to avoid fume and dust.

Diva swapa varjana to avoid day sleeping.

Raatri jagrana varjana to avoid night arousal.

C) *Achara Rasayana* /

Sadvritta palana (code of conduct):

Following are the codes of conduct to be followed everyday [19].

Dinacharya daily regimens to be followed regularly without the interruption in them.

Mukha Prakshalana: to be done possibly at least twice a day.

Abhyanga / *Udvartana*: medicated oil massage/massage with medicinal drugs to be done daily in order to maintain health of the skin

Vyayama: *ardha bala Shakti vyayama* should be done daily.

Snana: bath should be taken daily

Diwaswapna: one should not sleep in the afternoon soon after intake of food

Ratricharya: one should have dinner at appropriate time.

Ritucharya: one should observe & follow the seasonal regimens explained in *Ayurveda*.

Discussion:

Understanding the pathogenesis of psoriasis caused by above *Nidana* (Etiological factors), following logical discussion can be made:

Acharya Charak explains that *Atimatra*

Ashana is- “*Amapradosha* hetu”. *Ahita bhojana* when taken in *Atimatra* (excess) and at improper time (*Akala*) leads to *Dushti* in *Annavaha Srotas* and also disturbs the *Paka Prakriya* (Process of food digestion). *Lavana* - It provokes the *Pitta*, increases the blood, aggravates *Rakta*, formation of the dermatic lesion, depletion of the Muscle tissue [20]; *Ati-Madhura-Amla Rasa Sevana* leads to *Ajirna*, *Raktadushti*, *Raktaprakopaka*, *Mamsa Shaithilya* & *Pittavrudhikara*, finally suppuration of wounds takes place[21]; *Anup-Audak Mamsa*, *Guru*, *Snidgha*, [22], *Picchila*, *Abhishyandhi* leads to *Agnimandya Kara*; *Tila* is having the qualities of *Pitta Prakopa*, *Kushthakara* when consumed in excess; *Guda* (Jaggery) is *Krimikara*, *Medakara*, *Agnimandyakara*, *Kaphakara*; *Navanna* produces *Kledakara*, *Abhishyandhi*, *Vistambhakara*; *Dadhi* is *Maha-abhishyandi*, *Kaphakara*, *Kushthakara*; *Dravanna* is *Kledakara*; *Matsya* consumption is *Bahudoshakara*; *Pistanna* is *Guru*.

The *Agni* mostly gets vitiated by *Viruddha* type of *Ahara*. This vitiated *Jatharagni* does not digest even the lightest of food substance, resulting in indigestion. This indigested food materials turns sour and acts like a poison, which is called *Amavisha* [23]. *Tridosha* (body humours) gets provoked by this type of ingestion [24]. Intake of *Viruddahara* also vitiates *Srotasa*. In general, food substances and activities (*Vihara*) which are similar in quality to body humors and deleterious to the body elements vitiate the body channels [25]. *Samyoga Viruddha* (Fish with Milk) is more dangerous than others. Both milk and fish are *Madhura*, having *Madhura Vipaka* and are *Maha Abhishyandi*. However, milk is *Sheeta Virya* while fish is *Ushna Veerya*. Due to incompatibility at the level of *Veerya* when taken together it causes *Rakta dushti* and due to *Maha Abhishyandi* property it may obstruct the *Srotas* [26]. It may produce *Kleda* and *Amavisha*.

Mithya Ahara deranges the digestive power of *jatharagni* and also cause *Dushti* of *Grahani*. Thus the food doesn't get digested properly leading to production of *Ama*. As *Grahani* is also *Dushita*, *Ama* undergoes purification and *Amavisha* is produced

[27]. So along with *Kushtha*, other diseases which can be formed due to *Ama*, *Amavisha*, and *Grahani Dushti* etc. may coexist.

Vishama Ashana is best known to produce *Vishama Agni* [28]. According to *Acharya Charak*, taking food in state of indigestion is best known to cause *Grahani Dushti* [29]. This leads to impairment in normal physiological functions of *Grahani* as well. *Ajirna Dhaysahana* causes *Agnimandya* and *Dushti* in *Malavaha Srotas* [30]. Both are cause of *Agnimandya* so ultimately produces disease. Both of them also vitiate *Rakta* [31]. If this pathology continues for long time, *Kushtha* may be produced.

Taking excessive *Guru*, *Snidgha Ahara* produces *Dusti* in *Rasavaha Srotas* [32]. *Acharya Charak* has also described -“*Gurubhojana Durvipakakaranam*”- [33]. *Guru Ahara* also causes *Dusti* of *Mamsavaha Srotas*[34]. Excessive *Drava* Cause *Dusti* in *Raktavaha Srotas* [35]. Hence these *Aharaja Nidanas* has to be avoided and the *Pathya Ahara* which consists of *Laghu Anna* (light food articles), *Tikta Shaaka* (bitter vegetables) etc which are having *Laghu*, *Ruksha*, *Ushna Gunas*; *Tikta*, *Katu Rasa Padhana Dravya* and are *Kushtaghna* property has to be consumed.

Abrahmacharya (abstinence from sexual activities) may vitiate *Vata dosha*. *Divaswap* (Sleep during the day) vitiates *Kapha Dosha*. *Vegaavarodha* (to avoid natural urges) vitiates *Vata Dosha*.

Uccha Vachan (loud speaking) vitiates *Vata Dosha*. *Shoka*, *Krodha* (anger or anxiety) vitiates *Vata* and *Pitta doshas*. *Hima Aatap* (exposure to excessive heat or cold), *Pravaata* (walking in open air), *Ativyaayama* (vigorous exercise). *Yaanadhwa* (journey or excessive walking). *Asamsthitah* use of unsuitable posture. *Dhuma-rajasi* (fume and dust). *Raatri Jagrana* (night arousal) all vitiates *Vata Dosha*. Hence these *Viharaja Nidanas* which disturbs the normalcy of body humors and manifest the disease has to be avoided and *Pathya Vihara* has to be practiced which keeps the *Tridoshas* in normalcy.

The *Achara Nidanas* explained bring about psychogenic stress which is of prime importance in the pathogenesis of Psoriasis. Due to *Raja* and *Tama*

Doshas (mental humors) the *Manas* (mind) is always in search of materialistic pleasures and to satisfy its desires, it is always doing good and bad deeds (*Papakarma*). And as the after effects of such bad deeds he suffers from diseases like *Kushta*. Hence these *Nidanas* have to be checked and *Sadvritta* has to be followed which brings about the normalcy in raja and tama the *Mano Doshas*, thus soothing the stress by improving the *Satvika Dosh*.

Conclusion:

Psoriasis is one of the most common chronic inflammatory skin disorders, affecting about 2% of the general population. Psoriasis is considered as a T-cell-mediated inflammatory skin disease which is characterized by hyper proliferation and poor differentiation of epidermal keratinocytes. While susceptibility to psoriasis is inherited, the disease is influenced by environmental factors such as infections and stress. Psoriasis may substantially affect quality of life. Diet has been suggested to play a role in the etiology and pathogenesis of psoriasis. Diet has been equally linked with the treatment of psoriasis. It has been observed that psoriasis has been improved in 60% of the patients who changed their dietary habits. Today's food has lots of more refined & processed ingredients. It produces more toxins & our body unable to handle them. Fasting periods, low-energy diets and vegetarian diets improved psoriasis symptoms in some studies. With the use of a specific psoriasis diet, the internal body gets help to self-cleanse & eliminate toxins effectively. Once a person gets into a routine of eating *Hitakara Ahara* (healthy diet) in psoriasis, he/she will feel better & finally be able to control psoriasis for the whole life.

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