



Review Article

A COMPREHENSIVE REVIEW OF DIETETIC REGIMEN (*PATHYA- APATHYA*) IN SKIN DISORDERS

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ABSTRACT

For decades, it was thought that there was no relation between the dermatological conditions or the skin disorders and the diet. But recent studies have made an attempt to explore the relationship between the diet and its role in skin disorders. Ayurvedic system of Medicine also known as the Indian traditional medicine has contributed vastly for the diet and the management of skin disorders. In Ayurveda skin disorders are explained under the name *Kustha* which are twenty in number and two types as *Mahakustha* and *Kshudra kustha*. Since 5000yrs, Ayurveda is serving the society with the objective of curing of the disease and prevention of the same. Ahara has been given the prime importance in Ayurveda and is placed one among the *Trayopasthambas* or the three pillars of life such as *Aahara* (diet), *Nidra* (sleep) and *Brahmacharya* (celibacy) In depth of diet for the healthy and also the specific diet for the disorders has been described in Ayurveda and is being practiced by Ayurvedic practitioners since centuries which is witnessed in the latest research studies. The present study has made an attempt to assess both the Modern and Ayurvedic concepts of diet that is presently practiced and their importance in the management of skin disorders.

INTRODUCTION

Occurrence of skin disorders worldwide is significant and poses a burden of public health problem both in developed and developing countries. [1] Children are one of the most common victims of skin disorders though it affects people of all ages. [2] In 2013, skin and subcutaneous diseases were estimated as the cause of Disability Adjusted Life Years (DALYs) of 41.6 million and 39.0 million Year Lost due to Disability (YLDs) and thus making them the 18th leading cause of global DALYs. Between 1990 and 2017, skin and subcutaneous disorders raised up to 46.8%. [1] Most of the dermatological conditions although not fatal, but their impact leads the person to misery and makes him incapacitated. It affects patients at all level of manifestations such as physical, social and emotional well-being and even their relationship

with close relatives, friends, partners and families gets changed. [3,4]

Since longtime there was a notion that many dermatological conditions or skin disorders had no association with diet. But however, recent studies on skin disorders have discussed about the diet and its importance in the management of these disorders and has opined that the diet might influence their outcome. According to a study, dietary interventions may influence the course of the skin disease, might help in prevention and also act on the co-morbidities and their positive outcomes. In addition, dietary modifications may also reduce the risk of adverse effects associated with systemic medications prescribed for dermatological disease, such as steroids. [5]

Ayurveda describes the Skin diseases or the *Twakrogas* under the name *Kustha* that originates from the superficial to deep layers of skin. *Kushtha* is almost commonly divided into *Maha Kushtha* and *Kshudra Kushtha*, with some disagreements over the number within each group. In *Kustha*, *Pathya* or the diet plays a major role both in the alleviation and prevention of the disease. In this article an attempt is made to evaluate the role of *Pathya* and *Apathya* and

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their relationship both according to modern and Ayurvedic perspectives in the management of skin disorders or *Kustha*.

MATERIALS AND METHODS

Skin Disorders and Nutritional deficiencies

With the adequate and optimum nutrition, the skin including dermis and epidermis functions normally and any imbalance in the form of nutrient inadequacy, nutritional deficiency or excessive toxic components disturbs the equilibrium of the skin. It is observed that the nutritional deficiencies of vitamins, minerals, and fatty acids have clear cutaneous manifestations of skin diseases.^[6-9] Skin diseases and the nutritional deficiencies are inter-dependable as skin diseases may cause nutritional deficiencies through metabolic imbalances and even nutritional deficiencies can lead to skin disorders. Under the stressful situations, the demand for nutrients in skin gets modified and conditions like excessive inflammation of the skin increases the requirements of folic acid and protein etc specific nutrients.^[6] Research has been the in the highlight due to its studies on modulating effects of fatty acids on skin disorders, photo-protective potential of antioxidants^[10] and the effects of micronutrient supplementation on the skin immune system.^[8,11] Previously nutritional deficiency disorders were confined to the developing and the underdeveloped countries, whereas in recent years, these disorders have been reported to a greater extent in the developed countries showing that the skin disorders have been associated with nutritional deficiencies.^[12,13]

Skin Disorders due to Nutritional deficiencies

There are many deficiency disorders associated with the skin diseases such as Kwashiorkor which presents in the oedematous form, whereas, Vitamin A deficiency results in hyper keratinization with reduction of sebaceous glands and blockage of sweat glands.^[6] Hypovitaminosis A affects the skin by causing generalized hyperpigmentation, xerosis with fragile and sparse hair.^[13] Vitamin B12 deficiency leads to angular stomatitis, skin hyperpigmentation, changes in hair and vitiligo. Thereby a detailed history of food and dietary practices will be evaluated in skin lesions.^[14] Nutritional disease such as Pellagra will have combined deficiency of vitamin niacin and the essential amino acid tryptophan.^[7] Other causes of pellagra include mycotoxins, chronic alcoholism, excessive dietary leucine intake, oestrogens and progesterone etc.^[7,15,16] Vitamin C plays a role in the synthesis of the collagen and extracellular matrix.^[9,17] Zinc deficiency is also known to cause weeping dermatitis, poor wound healing, excessively fragile hair, sparse or no scalp and pubic hair and secondary infection etc.^[9]

Skin Disorders due to Excess Nutrients

A study has observed that the excess of various nutrients can also lead to certain skin disorders like carotenemia which is caused by the excessive intake of oranges and carrots etc carotene-rich fruits.^[18] It is observed that Hyperlipidemia is associated with Xanthelasma,^[19] dairy products, meat, and fish contains phytanic acid^[20] and impaired oxidation leads to rough scaly thickening over the extremities known as Refsum's disease.

Diet in Various Skin Diseases

Psoriasis is defined as an inflammatory skin disorder that gets triggered because of some specific diet. This diet is also called as inflammatory diet with imbalanced ω -6 and ω -3 fatty acids or that has a food allergen in the diet.^[21] Hence many psoriatic patients are advised gluten-free diet due to the improvement observed in psoriasis and its property of increased sensitivity to gluten.^[22,21] Treatment of psoriasis includes the recommendation of a low-calorie and low-protein diet that comprises modifications in the polyunsaturated fatty acid metabolism, prostaglandins and thromboxanes which in turn influences the eicosanoid profile.^[23] The remission of psoriatic symptoms is perceived as a result of lowering the protein intake by decreasing polyamine levels and limiting the epithelial proliferation.^[21] Viral infection of the skin or Herpes is reported to occur due to ingestion of refined sugar or arginine-rich food. However, this needs to be scientifically studied.^[24] Another study has suggested to include the combination of nutrients, such as those found in fruits and vegetables to maintain immune health, rather than intake of individual vitamins like A, B6, C, and E, folic acid, zinc, and iron.^[25] In case of an autoimmune disease like scleroderma, changes are observed with the avoidance of high-fiber diet^[26] and vitamin E supplementation.^[27] Clement *et al.* have shown a positive association between the intake of skim milk and the most common skin disorder i.e. acne.^[28] Robyn N Smith *et al.*, have also directed to follow the nutrition-related lifestyle to modify the pathogenesis of acne and avoidance of^[29] dietary products including chocolates and cakes to treat the skin disorder effectively.^[30]

The most important cause of today's health issues is the consumption of junk food and it is said to cause malnutrition in the children and specifically childhood Vitiligo.^[31] The skin condition Rosacea is also very much related to the consumption of alcoholic beverages, coffee, tea, hot drinks, tobacco and spicy foods. Foods such as coffee, yogurt, chocolate, cheese, and some fermented soybeans are reported to cause the irregular manifestation of skin lesions in atopic dermatitis.^[32]

Skin Disorders in Ayurveda

In Ayurveda Skin disorders or the dermatological conditions are described under the name *Twakrogas* or *Kustha*, that originates from the superficial to deep layers of skin. *Kushtha* is categorized into *Kshudra Kushtha* and *Maha Kushtha* the minor and major skin disorders with different opinions of *Acharyas*. The detailed description of these disorders with their aetiology, symptoms, management and dietetic instructions can be found in Ayurvedic literature.

Concept of Diet (Pathya-Apathya) in Ayurveda

Ayurveda, is an Indian medicine defined as the holistic science with a history of centuries originated in India. Currently Ayurveda is experiencing a healthy revival and is called as the Alternative or Complementary medicine. Ayurveda being a holistic science that treats a human being as a whole takes into account a person's physical, mental, emotional and spiritual aspects, *Tridoshas*, *Sapta Dhatus*, *Agni*, and *Bala* etc. and makes sure that all these are in a balanced state. Any imbalance in these factors leads to the diseases according to the science and in this *Aahara* plays a very important role. In Ayurveda, *Aahara* is mentioned among one of the *Trayopastambhas* or the three pillars for a healthy life, and *Aahara* is called as *Brahma*. *Acharya Kashyapa* calls *Ahara* as *Mahabheshaja* and therefore *Ayurveda Acharyas* advise to consume *Aahara* as per the *Tridosha*, *Deha prakriti*, *Satmya* of person as well as *Panchabhautika* composition of dietary substances etc. The main principle of *Pathya Ahara* and *Vihara* is the maintenance of the health in the healthy and preventive of the diseases.^[33]

The term '*Pathya*' means path or the way and contribution of *Pathya* is applicable to both body and mind. *Acharya Charaka* has very clearly described about *Pathya* as the *Ahara* that helps us in maintaining our health and prevent the disorders without causing any untoward effects. The description of *Pathya* can be found explained in the chapters *Ritucharya* and *Dincharya* and in the treatment of each disease conditions. Consumption of *Pathya Aahara* is said to speed up the recovery and improve the effectiveness of treatment advised. Healthy and proper eating habits help in the proper physical development of the body and on the contrary, unhealthy eating causes diseases. Few studies have observed that following regular *Pathya* helps in maintaining the equilibrium of *Tridoshas*, *Saptadhatu*s and *Trimalas*.^[34] *Apathya Aahara* is the one which is opposite to *Pathya Aahara* and this also plays an important role in the prevention of the disorders and in the protection of positive health.^[34]

Pathya- Apathya for Skin Disorders

Since time immemorial, skin has been given great importance owing to the aesthetic attributes. In Ayurveda, skin disorders are mainly described under the spectrum of *Kushtha*. As per the modern science, dietary modifications had no role in the management of dermatological conditions, however, recent studies have discovered a strong link between various dermatological conditions and food choices. This concept was described 5000yrs ago in Ayurveda and is being practiced even today by the Ayurvedic practitioners.

Regarding the *Nidana* or the aetiological factors of *Kushtha*, consumption of as *Ati-Lavana* (salt taste), *Ati-Amla* (sour taste), *Viruddhahara* (incompatible food items), *Guru-Snigdha* (heavy food items) *Annapana* and *Ajeernahara* plays a significant role in the development of skin disease. Balance consumption of *Sadrhas* is advised for the healthy by the *Acharyas*, whereas excessive consumption of *Lavana Rasa* (salt taste), increases the *Pitta Dosha* and aggravates *Rakta*. Excessive consumption of *Madhura*, *Amla* and *Lavana rasa* causes *Rakta* and *Kapha Dusti* and in turn the manifestation of skin disorders. Other food items that leads to the *Kushtha* are *Dadhi*, fish with milk, *Masha*, *Mulaka*, *Tila*, *Madya Kushtha*, over-consumption of *Guda* and alcohol, new grains and long term intake of *Dadhi*. *Kushtha* presents with features such as *Kandu*, *Rakta-Varnata*, increases *Mandalotpatti*. Based on the diagnosis of type of *Kushtha*, treatment will be advised accordingly with the appropriate *Pathya* and *Apathya*.^[35]

The importance of *Pathya* or the wholesome diet in Ayurveda can be understood from the fact that *Acharya Charaka* had stated *Pathya* as a synonym for treatment. Diseases can be cured and recurrence can be avoided only by following the *Pathya* as consumption of medications alone will not be helpful in treating the problem. In *Kushtha*, diet or the *Pathya* should be very specific and followed in a systematic way, instead it might increase the intensity of the problem. There are many *Pathya Dravyas* mentioned for the management of *Kushtha* such as intake of *Laghu Anna*, *Tikta Dravya* and *Shaka* as foods rich in bitter taste increases gut metabolism and because of its *Shodhana*, and *Lekhana* property, it clears microchannels and help in prevention of toxin accumulation.^[36-38]

DISCUSSION

Pathya, the wholesome diet and the *Apathya*, the unwholesome diet are the concepts available only in Ayurvedic literature. This is the basis for our healthy and the unhealthy status of our body and mind. *Ayurvedic* diet consists of *Shadrhas* i.e., six *Rasas* or the tastes such as *Madhura* (sweet), *Amla* (sour), *Lavana* (salt), *Katu* (spicy), *Tikta* (bitter) and the

Kashaya (astringent). Consumption of balanced *Shadrasayukta Ahara* including all the six tastes helps in maintenance of the health and prevention of the diseases. *Ahara Sevana* according to the seasons and also as per the *Agni* (digestive power) and the *Bala* or the strength of the person is the unique concept of Ayurvedic science. Modern diet and nutrition comprises six nutrients that help in the metabolism and assimilation of the body tissues. It includes carbohydrates, proteins, fats, vitamins and minerals that help to sustain our life. This diet helps in keeping us healthy no doubt but the principles of diet explained in Ayurveda helps in treatment of diseases effectively with the early recovery from the disease and in the prevention of the disorders. This can be applied effectively in the management of skin disorders as these disorders have been given a great importance in Ayurveda. The present study makes an attempt to evaluate the principles of diet described for the effective management of skin disorders as per both Modern and Ayurveda and the relationship between both.

CONCLUSION

Skin disorders are the most troublesome diseases as it affects the person physically, psychologically and emotionally. These are the disorders which takes a long haul to completely recover from the problem in spite of many advanced treatments. In addition, the treatments or the medicines are accompanied by adverse effects that disturb the quality of life of the patients considerably. Ayurveda treatments are known to heal the patients completely but take some time due to its holistic approach and with the aim of prevention. Along with the treatments, Ayurveda concentrates in depth about the diet or the *Pathya* and its role in skin disorders that makes it distinct from the other branches of medicine. The present study is one such study that focuses on both the Modern and Ayurvedic concepts of diet that is presently practiced and their importance in the management of skin disorders.

REFERENCES

1. Karimkhani C, Dellavalle RP, Coffeng LE, et al. Global skin disease morbidity and mortality: an update from the global burden of disease study 2013. *JAMA Dermatol.* 2017; 153(5): 406–412.
2. Vora R, Bodiwala N, Patel S, Krishna S. Prevalence of various dermatoses in school children of Anand district. *National J Commun Med.* 2012; 3(1): 100–103.
3. Bezie Z, Deboch B, Ayele D, et al. Common skin diseases. *Int Dev.* 2005; 13: 200–204.
4. Hay RJ, Johns NE, Williams HC, et al. The global burden of skin disease in 2010: an analysis of the prevalence and impact of skin conditions. *J*

- Investigative Dermatol. 2014; 134(6): 1527–1534. [PubMed] [Google Scholar]
5. Katta R, Desai SP. Diet and dermatology: the role of dietary intervention in skin disease. *J Clin Aesthet Dermatol.* 2014 Jul; 7(7): 46-51. PMID: 25053983; PMCID: PMC4106357.
6. Garrow JS, James WP, Ralph A. 10th ed. Churchill Livingstone; 2000. Skin, hair and nails: Human nutrition and dietetics; pp. 731–46. [Google Scholar]
7. Bender DA. Pellagra. In: Sadler MJ, Strain JJ, Caballero B, editors. *Encyclopedia of human nutrition.* San Diego, CA: Academic Press; 1999. pp. 1298–302. [Google Scholar]
8. Ziboh VA, Miller CC, Cho Y. Metabolism of polyunsaturated fatty acids by skin epidermal enzymes: Generation of anti-inflammatory and antiproliferative metabolites. *Am J Clin Nutr.* 2000; 71: 361S–6S. [PubMed] [Google Scholar]
9. Tobin DJ. Biochemistry of human skin-our brain on the outside. *Chem Soc Rev.* 2006; 35: 52–67. [PubMed] [Google Scholar]
10. Black HS. Mechanisms of pro- and antioxidant. *J Nutr.* 2004; 134: 3169–170. [PubMed] [Google Scholar]
11. Maintz L, Novak N. Histamine and histamine intolerance. *Am J Clin Nutr.* 2007; 85: 1185–96. [PubMed] [Google Scholar]
12. Liu T, Howard RM, Mancini AJ, Weston WL, Paller AS, Drolet BA, et al. Kwashiorkor in the United States. Fad diets, perceived and true milk allergy, and nutritional ignorance. *Arch Dermatol.* 2001; 137: 630–6.
13. Chia MW, Tay YK, Liu TT. Phrynoderma: A forgotten entity in a developed country. *Singapore Med J.* 2008; 49: e160–2.
14. Kannan R, Ng MJ. Cutaneous lesions and vitamin B12 deficiency: an often-forgotten link. *Can Fam Physician.* 2008; 54: 529–32.
15. Das R, Parajuli S, Gupta S. A rash imposition from a lifestyle omission: a case report of pellagra. *Ulster Med J.* 2006 Jan;75(1):92-3. PMID: 16457414; PMCID: PMC1891790.
16. Thami GP, Kaur S, Kanwar AJ. Delayed reactivation of haloperidol induced photosensitive dermatitis by methothrexate. *Postgrad Med J.* 2002; 78: 116–7.
17. Tamura Y, Welch DC, Zic JA, Cooper WO, Stein SM, Hummell DS. Scurvy presenting as painful gait with bruising in a young boy. *Arch Pediatr Adolesc Med.* 2000; 154: 732–5.
18. Takita Y, Ichimiya M, Hamamoto Y, Muto M. A case of carotenemia associated with ingestion of nutrient supplements. *J Dermatol.* 2006; 33: 132–4.

19. Jain A, Goyal P, Nigam PK, Gurbaksh H, Sharma RC. Xanthelasma palpebrarum-clinical and biochemical profile in a tertiary care hospital of delhi. Indian J Clin Biochem. 2007; 22: 151-3.
20. Wills AJ, Manning NJ, Reilly MM. Refsum's disease. Q J Med. 2001; 94: 403-6.
21. Traub M, Marshall K. Psoriasis-Pathophysiology, conventional and alternative approaches to treatment. Altern Med Rev. 2007; 12: 319-530.
22. Brown AC, Hairfield M, Richard DG, McMillin DL, Mein EA, Nelson CD. Medical nutrition therapy as a potential complementary treatment for psoriasis: Five case reports. Altern Med Rev. 2004; 9: 297-307.
23. Sharon EJ, Tace S. The role of diet in the treatment of psoriasis. US Dermatol Rev. 2006
24. Gaby AR. Natural remedies for herpes simplex. Altern Med Rev. 2006; 11: 93-101.
25. Thomas SL, Wheeler JG, Hall AJ. Micronutrient intake and the risk of herpes zoster: A case control study. Int J Epidemiol. 2006; 35: 307-14.
26. Gough A, Sheeran T, Bacon, Emery P. dietary advice in systemic sclerosis: The danger of a high fibre diet. Ann Rheum Dis. 1998; 57: 641-2.
27. Gaby AR. Natural remedies for scleroderma. Altern Med Rev. 2006; 11: 188-95. [PubMed] [Google Scholar]
28. Adebamowo CA, Spiege lman D, Berkey CS, Danby WF, Rockett HH, Colditz GA, et al. Milk consumption and acne in teenage boys. J Am Acad Dermatol. 2008; 58: 787-93.
29. Smith RN, Mann NJ, Braue A, Makelainen M, Varigos GA. A low-glycemic-load diet improves symptoms in acne vulgaris patients: A randomized controlled trial. Am J Clin Nutr. 2007; 86: 107-15.
30. Magina P, Ponda D, Smithb W, Watsonc A. A systematic review of the evidence for 'myths and misconceptions' in acne management: Diet, face-washing and sunlight. Fam Pract. 2005; 22: 62-70.
31. Behl PN, Agarwal A, Srivastava G. Etiopathogenesis of vitiligo: Are we dealing with an environmental disorder? Indian J Dermatol Venerol Leprol. 1999; 56: 161-7.
32. Uenishi T, Sugiura H, Uehara M. Role of foods in irregular aggravation of atopic dermatitis. J Dermatol. 2003; 30: 91-7.
33. Janmajay Sidar, Pramod Kumar Baghel. Concept Of Pathya & Apathya In Ayurveda: A Review Article. World Journal of Pharmaceutical and Medical Research. Vol 8, Issue 12, 2022.
34. Sakshi C, Rupali, Sonali T, Indu, Importance of Pathya-Apathya in Ayurveda: A Review Article. J Ayu Int Med Sci. 2023; 8(12): 125-129.
35. Amit Choudhary et al. Anexploratory analysis of probable role of Pathya and Apathya in skin disease. Journal of Ayurveda and Integrated Medical Sciences | May 2023| Vol. 8| Issue 5
36. Harish Chandra Singh Kushwaha, editor. Charak Samhita. 1st edition. Vol 2., Varanasi. Chaukhamba Orientalia 2018, Chikitsa Sthana, Chapter 1, Pada 1, Verse3.
37. Vishwanath pranit, Bramhanand Tripathi, Pathyapathya Vinirnaya, 2nd edition, Chaukhambha Sanskrit Pratisansthan, 2008; Shloka No.6, Page No.70-71.
38. Pandit Hemaraja Sharma, editor Kashyap Samhita, revised edition, Chaukhamba Sanskrit series office, Banaras, Khila Sthana, Chapter4, Verse 5-6, p.249.

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