

Psoriasis:

Western and Ayurvedic Approaches to Treatment

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Psoriasis (sore-EYE-ah-sis “to have the itch” is a chronic, inflammatory disease of the skin and is classified as an auto immune disorder. For individuals afflicted with it, it can be both physically and psychologically distressing. It is estimated that somewhere between 1.5-3% of the adult U.S. population has psoriasis. ⁽¹⁾ Psoriasis can appear anywhere on the skin and is clinically characterize as mild, moderate, or severe.

The physiological mechanism behind psoriasis is as follows: A person’s immune system sends faulty signals telling the skin cells to grow too quickly. This miscommunication causes new skin cells to form rapidly, which result in the pile up of healthy cells on the skin.

However, the etiology of psoriasis is multifactorial and not completely understood. Men and women are equally affected; however, siblings and offspring of individuals affected with psoriasis are at an increased risk of developing the immune disorder. ⁽²⁾ One important note, psoriasis is not contagious. For the purpose of this paper we will discuss plaque psoriasis and briefly identify other grades of the skin disorder.

Western medicine offers three categories of treatment for psoriasis – topical therapy, phototherapy (light therapy) and systemic therapy.

One of the most baffling and persistent of skin disorders psoriasis is unpredictable and irritating. It is characterized by skin cells that multiply up to ten times faster than normal. ⁽³⁾ As underlying cells reach the skin’s surface and die, their sheer volume creates raised, red erythematous plaques covered with white scales. According to the Mayo Clinic “Diseases and Conditions”, the cause of psoriasis is not fully known, but it is thought to be related to an immune system problem. One key cell is a type of white blood cell called a T lymphocyte or T cell. Normally, T cells travel throughout the body to detect and fight off foreign substances, such as viruses or bacteria. If you have psoriasis, the T cells attack the healthy skin cells but cannot differentiate self from non-self and attack the healthy sells by mistake, as if to heal a wound or fight an infection. Overzealous T cells trigger other immune responses and the sequela can include dilation of blood vessels in the skin around the plaques and an increase in other white blood cells that can enter the outer layer of the skin. These changes result in an increased production of healthy skin cells and more T cells as well as other white blood cells. This causes rapid feedback loop which new skin cells move to the outermost layer of the skin too quickly, in days rather than weeks. The dead skin and white blood cells can’t slough off quickly enough and build up in thick, scaly patches on the surface of the skin. This usually does not stop unless treatment occurs and interrupts the cellular reproductive cycle. Western medicine is not clear what causes the T cells to malfunction in people with psoriasis. However while it is clear the there is a genetic link, it is also clear that environmental factors do play a role. ⁽⁴⁾

Plaque psoriasis symptoms, being the most common variety of the skin disorder, are plaques of red skin often covered with loose, silver colored scales. These lesions may be itchy and painful, and they sometimes crack and bleed. At times these plaques of irritation with grow and merge into one another to cover large areas of the body. Psoriasis typically occurs on the knees, elbows, and scalp, as well as affecting the torso, palms, and soles of the feet. People who experience psoriasis know that this uncomfortable and at times deforming skin disease is difficult and discouraging to treat, as the condition comes and goes in cycles of remission and flare ups over a lifetime. While there are medications and treatment therapies that can help to clear up the patches of red, scaly thickened skin and alleviate the pruritus, that are the characteristics of psoriasis, there is no cure. Following are examples of the types of psoriasis, as stated earlier this paper will refer to plaque psoriasis which is the most common type.

Table 1: Types of psoriasis

Type of psoriasis	Symptom	Visual
Plaque psoriasis	<ul style="list-style-type: none"> -red, sharply defined, scaling papules that coalesce to form stable round to oval plaques. -typically involves extensor extremities, scalp, and sacrum. -It usually spares the palms, soles, and face. -deep rich red color is a characteristic feature that remains constant. -the scale is adherent, white and reveals bleeding points when removed. ⁽⁵⁾ 	
Guttate psoriasis	<ul style="list-style-type: none"> -unstable form, associated with sudden appearance of innumerable monomorphic psoriasiform papules on the trunk. -it is often associated with group A 	

	streptococcal pharyngitis, viral infection and less often with systemic steroid withdrawal. (5)	
Inverse (Intertriginous) psoriasis	-uncommon form occurring in in flexural or intertriginous areas, often in the groin and under breasts. -there are smooth red and sharply defined plaques with a macerated surface. -superimposed candidal infections are seen more commonly in diabetic patients and with topical steroids. (5)	 <small>© MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH. ALL RIGHTS RESERVED.</small>
Pustular	-uncommon, severe form requiring immediate medical attention. -may be associated with fever and tenderness. -may be drug related. -sterile pustules are regional or generalized, and often occur in waves. (5)	 Pustular psoriasis usually exists as a large red area covered with green tender pustules (blisters) that are one to two millimetres in diameter.
Erythrodermic	-uncommon severe form requires immediate medical attention. -there is total body redness with chills and skin pain. -may be drug related. (5)	

The three categories of treatment for psoriasis are as follows: topical therapies such as lotions, ointments and shampoos. Phototherapy, such as UVB and laser light, and third; is systemic therapy consisting of oral or injected medications.

Topical treatments are most appropriate for mild to moderate psoriasis. Topical corticosteroids are most commonly used as they slow cell turnover by suppressing the immune system. Long term use of these can cause thinning of skin and resistance to treatment benefits. As a general rule topical treatments are only used during active breakouts until they are under control. Other topical treatment options include synthetic Vitamin D to slow down skin growth. This is expensive and can irritate the skin. Anthralin is a topical medication that disrupts cell DNA therefore should not be used on face or genitals. Topical Retinoid can be used to normalize DNA activity in skin cells and may decrease inflammation. Retinoids can cause sun sensitivity leaving an individual susceptible to sunburn. Most common side effects are skin irritation. Retinoids are not recommended for pregnant or nursing women. Calcineurin inhibitors have to do with inhibiting T cells in the immune system during flare ups; they are not recommended for long term use because of their potential increased risk of skin cancer and lymphoma. ⁽⁶⁾ Salicylic acid which promotes sloughing of dead cells and reduces scaling. Some people are allergic to salicylic or can develop skin irritation. Another option is coal tar which is a byproduct of petroleum products. It is not exactly known how it works to reduce scaling, itching, and inflammation. Unfortunately this treatment is known to be messy, stinky and stains what it touches. Again this is not recommended for pregnant and nursing women. The final option, moisturizers can reduce itching, scaling as well combat dryness. Ointment based moisturizers are more effective, these won't heal psoriasis.

The second types of western treatment option are light therapies. (Phototherapy) This can involve natural or artificial light for the treatment of psoriasis. One option is sunlight- ultraviolet light kills the activated T cells in the skin, which slows down cell turnover and reduces scaling and inflammation. Over exposure to sunlight can worsen symptoms and cause skin damage. UVB phototherapy is another option; this must be done in controlled doses and in single patches. Narrow band UVB option is very time consuming with minimum of two-three times per week requiring weekly maintenance and over time can cause more severe and longer lasting burns. Photo chemotherapy, involves taking a light sensitizing medication before being exposed to UVA light. This is an aggressive treatment involving two-three treatments a week. Side effects can include nausea, headaches, burning itching skin and long term skin dryness, wrinkling, freckles and increased risk of skin cancer. Laser therapy namely Excimer laser requires fewer sessions with side effects that include redness and blistering.

Third treatment option of psoriasis involves oral or injected medications. These treatments are usually reserved for severe psoriasis or psoriasis resistant to other treatment forms. Retinoids which are related to Vitamin A may reduce the production of skin cells. Once therapies are stopped symptoms usually return. This type of therapy can cause lip inflammation and hair loss. Retinoids can cause severe birth defects so women must avoid pregnancy for at least three years after taking medication. ⁽⁷⁾

Although doctors choose treatments based on the type and severity of psoriasis and the areas of the skin affected, the traditional approach is to start with the mildest treatments - topical creams and ultraviolet light therapy (phototherapy) - and then progress to stronger ones only if necessary. The goal is to find the most effective way to slow cell turnover with the fewest possible side effects.

There are many other oral and injectable options for the treatment of psoriasis, - yet the side effects can be harsh. Some of the other side effects include liver damage, decreased production of white blood cells and platelets, kidney problems and high blood pressure. Despite the fact that psoriasis is incurable, it responds well to many topical and systemic treatments. Even people with severe psoriasis can get relief during flare-ups in about 85% to 90% of cases. One must decide if the relief outweighs the possible side effects. ⁽⁸⁾

Ayurvedic perspective

Psoriasis in Sanskrit is Eka Kustha (obstinate skin diseases) and according to Swami Sadashiva Tirtha arises from aggravated Vata, Pitta, and Kapha becoming “deranged by four tissues (dhatus): skin-plasma/lymph (rasa/lasika) muscle (mamsa) and blood (rakta.) Then they spread throughout the body.” The term Kustha is originated from the word “Nikushi,” and denotes that kustha is a disease causing disgraceful situation in which vitiated rakta becomes destructed in the body. ⁽⁹⁾ Specifically Eka Kustha Purvarupa (symptom):

- Absence of perspiration (Aswedanam)
- Extensive localization (Mahavastu)
- Resembles scales on a fish (Matsyashakolopamam) ^{(10) (12)}

Table 2: Categories of Kustha

In Ayurvedic text eighteen clinical categories of Kustha are described as follows: ⁽¹¹⁾

Name	Dosha	Symptom
Kapala Kustha	V predominant	Looks like a black and reddish piece of earthen jar. It is rough, coarse, thin and painful.
Audumbara Kustha	P	It is associated with burning sensation, itching, pain and redness. Brown skin hairs. It looks like ripe fruit of udumbara
Mandala Kustha	K	White, red, stable, extensive, unctuous, with raised patches and joined with one another.
Rysa-jihva Kustha	V - P	It is rough, with red margins, internally blackish, painful. It looks similar to the tongue of rysa (antelope)
Pundarika Kustha	K – P	It is whitish, with red margins, raised, simulating lotus petals and with burning sensation.
Sidhma Kustha	V –K	It is white, coppery, and thin, leaves out dust like powder on rubbing and simulates flowers of bottle gourd. It appears mostly on the chest.
Kakanaka Kustha	V-P-K	It looks like gunja seeds in color, does not suppurate and is exceedingly painful. It has symptoms of all three dosha's.
Eka Kustha	V-K	It does not perspire; it is extensive and looks like fish scales.

Carma Kushta	V-K	The skin over the patch becomes thick like the skin of the elephant.
Kitima Kushta	V-K	It is blackish, rough in touch like scar tissue and it is hard to touch
Vipadika Kushta	V-K	Associated with cracks in palms and soles of feet as well as excruciating pain.
Alasaka Kushta	V-K	Nodular growth associated with excessive itching sensation/red.
Dadru Kushta	V-K	Itching sensation, redness, pimples and circular patches with elevated edges.
Carmadala Kushta	P-K	Redness, itching, pustules, pain, cracks in the skin and tenderness.
Pama Kushta	P-K	Excessive itching, eruptions which are white, reddish or blackish brown in color.
Sphota Kushta	P-K	Pustules which are either white or reddish in appearance, these pustules have a thin skin.
Sataru Kushta	P-K	Several ulcerated patches which are red or blackish brown in color and which are associated with burning sensation as well as pain.
Vicarcika Kushta	K	Blackish brown eruptions associated with itching sensation and excessive exudation.

The characteristic features give a clear picture of what the disease is. It is a vata-kapha predominant tridoshic vitiation. ⁽¹³⁾ Charaka clearly states "All types of Kustha are caused by the three doshas together, so predominance or a minimal role of each dosha must be determined from the respective symptoms. All types of Kustha are caused by the three doshas together, so predominance or minimal role of each dosha must be determined from the respective symptoms" ⁽¹⁴⁾

Nidana (causative factors)

- Who habitually take incompatible food items and incompatible food liquids.
- Who habitually take unctuous and heavy substance.
- Who suppress the natural urges (particularly of vomiting.)
- Who are exposed to physical exercise and/or intense heat after eating excessively
- Who use cold, hot, lightening measures and diet against the prescribed order
- Who apply cold water immediately after intense exposure to the sun, exertion or fear
- Who take food during indigestion and when the previous meal is not properly digested
- Who use contra-indicated items while undergoing panchakarma therapy
- Who use excessively new cereals
- Who use curd, fish, salt and sour substances.
- Who indulge in eating black gram, radish (rice) flour preparations, sesame, milk and jiggery
- Who have intercourse during indigestion
- Who sleep regularly during the day
- Who insult the Brahmanas, teachers (and other respectable persons)
- Who indulge in sinful activities.

Charaka continues, if a person takes improper food combination, improper timing of meal consumption, and excessively, constantly, takes heavy, sour and hot quality of foods leads to a skin disorder. It is also articulated that exposed in excess heat or sudden exposure to cold water contribute to Kusthas.. If food is taken improperly, the foods produce the toxin (ama) in the body; ama vitiates all doshas. ⁽¹⁵⁾

Chikitsa (Ayurvedic treatment)

The Caraka states the “patient of kustha with more of vitiated dosha’s should be given eliminative therapies for several times. The physician while administering, these elimination therapies frequently

should be vigilant about their life.”⁽¹⁶⁾ To expel out the vitiated dosha’s bloodletting, external and internal administration of alleviation therapies and administration of medicated ghee in appropriate time, the curable types of kushtha gets cured. Vamana (therapeutic vomiting) should be done every fortnight, downward purification Virechana (purgation) every third day and Raktamokshana (blood purification) every six months.⁽¹⁷⁾ These are three of the five practices of the Ayurvedic process to remove ama from the body known as pancha karma. Pancha means five and karma means action. There are five practices that make up pancha karma. The other two are basti (enema) nasya (nasal purgation.) It is worth noting that pancha karma can be extensive and there is much more to it than stated. The reader should examine this topic in length. More information can be found in *The Principles of Ayurvedic Medicine*, Dr. Marc Halpern.

Vamana (therapeutic vomiting)

Vamana is the best method for removing excess kapha and accompanying ama from the body. As kapha is stored in the stomach, vamana is the treatment of choice to cleanse the stomach. Vamana is indicated in all sama-kapha conditions where the patient is strong. Vamana may also be applied apart from pancha karma and is useful for all chronic kapha respiratory diseases. *“The procedure begins the night before vomiting is to take place. Before going to bed the patient takes some whole milk and ghee and sugar to aggravate kapha dosha. One cup may be taken. Then, upon awakening in the morning the patient drinks two cups of fennel or mint tea prepared with tea teaspoons per cup. After a couple of minutes the patient drinks a strong decoction of licorice root prepared by decocting one ounce of herbs in four cups of water and reducing the decoction to two cups. The patient should drink steadily until the urge develops. As an alternative, 1-2 tablespoons of salt can be mixed in a cup of water and the patient can drink two cups. Exact dosages are really specific to the individual and the right dose is the dose that works. Hence, if a patient does not develop the urge to vomit, the practitioner should increase the dose and strength of the decoction.”*⁽¹⁸⁾ It is important to note that there are contraindications of vamana, these include: chronic weakness, immune suppression, hiatal hernia and use of prednisone.⁽¹⁹⁾

Virechana (purgation)

The purpose of virechana is to remove excess pitta dosha and pitta ama from the small intestine, liver and gallbladder. As pitta has its roots in the small intestine, purgation is the best method of healing from pitta conditions. Virechana is indicated in all sama-pitta condition where the patient is strong. It may also be applied apart from pancha karma and is useful in all acute pitta conditions. *“One method is to give the patient a purgative (senna, rhubarb, or dried aloe) at night before bed with a glass of water. The herbs may be taken in warm water or by capsule. The exact dose to give varies for each patient. The*

intensity of the action depends upon the sensitivity of the patient's small intestine to the irritating ability of the herb. At the CCA Pancha Karma Center we usually begin by giving the patients 4-5 grams of herb capsule form. This is the equivalent of about 10 OO' capsules. It is wise to mix the herbs with a small amount of dipana such as fennel or ginger to avoid intestinal cramping or "gripping." Upon arising the patient should have a cup of hot water. The urge to have a bowel movement should occur within 1-3 hours. A second method may also be used. This entails using a faster acting purgative such as castor oil. Two tablespoons are given to the patient in a small amount of juice or milk on an empty stomach. The urge for bowel movements should occur in 2-3 hours. Again, taking fennel or ginger along with the castor oil will decrease gripping. If the patient does not have the urge for intense bowel motions after method number one, the practitioner should proceed to method number two in the late morning."

⁽²⁰⁾Contraindications: weak patients, those who are immune suppressed or taking prednisone and should also not be applied to patients with chronic diarrhea as these patients are usually too weak. It should also be avoided in patients with bleeding hemorrhoids. ⁽²¹⁾

Rakta Mokshana (bloodletting/purification)

The purpose of rakta mokshana is to remove toxic blood from the body and stimulate new blood formation. This procedure was added by Sushrut to pancha karma practice. Vitiating pitta benefits the most from this procedure. This procedure has not often been performed in recent years but is coming back into use. Leeches may be used or venipuncture (removal from a punctured vein). Contraindications would be those that have bleeding disorders, patients on blood thinning medications, and advanced stages of tumors or diabetes. ⁽²²⁾

"The medicines applied externally exhibit quick effect after the impurity of blood is eliminated and thus the seat of morbidity is evacuated" Charaka Samhita

In regards to herbal treatments; identifying which is the primary dosha out of balance and treat that first through appropriate therapies.

Diet

As stated by the Charaka proper diet is of utmost importance for skin disorders.

The patient suffering from Kustha should take the following diet: ⁽²³⁾

- Light and wholesome food.

- Leafy vegetables having bitter taste.
- Food and medicated Ghee prepared by boiling with Bhallataka (musta), Trifala,(Haritaki, Amalaki, Bibhitaki) and Nimba. (neem)
- Old cereals
- Meat of animals inhabiting arid land and preparations of mudga (green gram) mixed with patola.

Western medicine offers an ample choice for the alleviation of symptoms of psoriasis, none that address the root cause of the skin disorder. These choices all come with a multitude of possible side effects, none are pleasant. In Ayurveda it is recognized that the diet plays an essential role in health and maintenance of the immune system. The skin directly reflects the rasa dhatu (plasma) which is the first tissue produced from the food that we have digested and mirrors overall body health. In conclusion; the skin is the largest organ of the body and the most exposed to the external world. The skin either protects us from the exposure of external forces of wind, dryness, heat and cold or allows them to enter into our body resulting in various diseases. Thus, appropriate care of the skin is directly related to the immune system and essential health. Ayurveda offers treatment for the root of psoriasis by cleansing the vitiated dosha as well as balancing the body, mind and spirit. Ayurveda believes that creating doshic balance is essential for well-being.

“Love, Serve, Give Purify, Meditate, Realize.” - Swami Sivananda

Endnotes:

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