

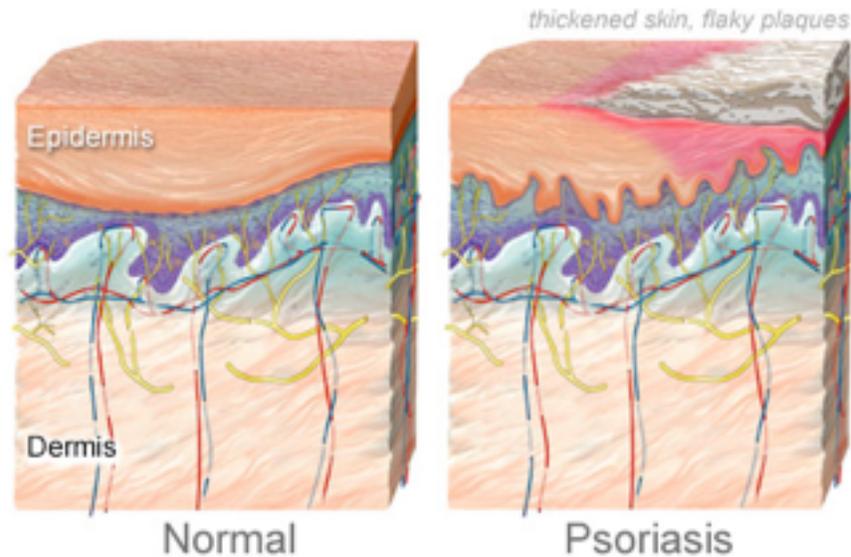
Psoriasis a review of literature western and ayurvedic perspectives

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Psora, means itch, rash, or skurf. Therefore Psoriasis can be called the itching disease. Psoriasis effects 2.5% of the world population and 30% of patients experience arthritic psoriasis effecting the joints.(7) Psoriasis is recognized in the west as an chronic inflammatory autoimmune disease caused by genetics, the immune system and environmental factors. In ancient times it was thought of as leprosy, (7)as noted in the charaka samhita under the chapter for treatments and discussion on leprosy, worms and other skin conditions,(25) which arose some time during the 1st century CE(32). Many people were mis diagnosed with leprosy when they actually were experiencing what we now call psoriasis. These people were isolated from their communities (since leprosy is contagious unlike psoriasis) and given the treatments for leprosy.(7)“The English dermatologist, Robert Willan (1757 ~ 1812) recognized psoriasis as an independent disease. He identified two categories. “Leprosa Graecorum” was the term he used to describe the condition when the skin had scales. Psora Leprosa described the condition when it became eruptive” (7) Ayurveda too has a distinction similar, according to research performed by Doctor Halpern director of California College of Ayurveda,”The term Eka Kushta applies when there is a single lesion. The term vicharachika occurs when there is extensive thickening. Kitibha applies to the rough, hard qualities of the lesions.” (Dr. Halpern 2016) It is also said that the tzaraat disease mentioned in the bible was that of likening to psoriasis. (33) It was not until 1841 that Ferdinand von Hebra a Vietnamese dermatologist coined the term Psoriasis.(33) The separate terms like plaque, inverse, pustular, guttate, Erythrodermic and psoriatic arthritis that we now know of today were developed and discover within the 20th century. The treatments have evolved as well, in the west the treatments were composed of coal tar soaps and sunlight(33). That have grown into the vast variety of creams and types of light therapies that people have presently available.

With psoriasis “Our body responds by making new skin cells every few days instead of the usual 4 weeks. Those new skin cells build up on your body's surface and form a rash.” (11)The symptoms can come and go, relapse and subside. A person may have only a few spots on their body or entire patches covering huge sections of the body.(1) This disease causes great psychological and physical disrupt to the happiness and wellbeing of life for he individual. The eruptions can be in many different places and covering such large portions of the body that it can lead to depression and stress. On the flip side psoriasis itself can also be triggered by stress, therefore after someone already has symptoms driven by the stress in the first place, and continuing on because the entire experience is bringing on even more stress.(7)(4) Diet can also be looked at as a trigger point, Western science and medicine do acknowledge that people have found remorse from cutting out gluten and inflammatory foods but The National Psoriasis Foundation does not see a direct link scientifically. Something generally triggers the skin to flare up creating an

uncomfortable variety of symptoms including inflammation and excess skin cell production, itching sometimes leading to more scabs that bleed. If the symptoms are in combination with arthritic symptoms, this is called Psoriatic arthritis. The National Psoriasis Foundation lists that there are 5 varieties of skin eruptions under the umbrella of psoriasis. (1)



1. **Plaque Psoriasis:** Plaque psoriasis affects 80% to 90% of patients making it the most common.(4) Rapid cell growth creates silvery scale, on top of irregular shaped spots of red. Generally found on the scalp, knees, elbows and lower back that may crack and bleed. (1)

“Approximately 80% of those affected with psoriasis have mild to moderate disease, with 20% having moderate to severe psoriasis affecting more than 5% of the body surface area (BSA) or affecting crucial body areas such as the hands, feet, face, or genitals”(4)

Western Treatment: Topical treatments are applied to the affected area, many are composed of steroids, some without. Other treatments include phototherapy and changes to diet.

Over the counter treatments:

- a. Salicylic acid is an over the counter treatment it works to peel the scales, if treatment is left on the skin for too long it may cause irritation and may cause weak hair if used on the scalp and lead to hair loss.
- b. Tar soaps are said to be effective by slowing the skin cells rapid growth. The Tar can be derived from juniper, pine or even coal. Using tar soaps in high concentrations can be a leading factor in cancer “California requires OTC coal tar shampoos, lotions and creams that contain more than 0.5 percent coal tar to be labeled with cancer warnings. However, the FDA maintains that OTC products with coal tar concentrations between 0.5 percent and 5 percent are safe and effective for psoriasis, and there is no scientific evidence that the tar in OTC products is carcinogenic.” (2)

- c. Fragrance free, non synthetic moisturizers have been found effective, applied after lukewarm showers or after washing hands.
- d. Adding oil, oatmeal sachets, epsom salts, dead sea salts to a bath can alleviate itching and remove scales. These baths should only last 15 minutes. Apply moisturizer immediately after.
- e. Others include topical medications that contain steroids or scale lifters (keratolytics)

(2)

Non-steroidal Medications:

- a. Dovonex (calcipotriene): This is a synthetic form of Vitamin D3, used to slow the rapid production of skin cells. Side Effects: Itching, burning, dry skin, rash, dermatitis and possibility to revert back into a deeper psoriasis.
- b. Tazorec (tazarotene): Tazarotene may cause the effected area to become very red before alleviations of scales, it is said that there is no pain. Tazarotene is a derivative of Vitamin A.
Side effects: heightened susceptibility to sunburn, dry skin.
- c. Vectical (calcitriol): Calcitriol is the active form of Vitamin D3, different from calcipotriene because it is the true and natural form of D3 rather than synthetic. This medication also slows down the skin cell production. It can not be applied to the eyes, lips, face.
Side effects: excess of calcium in urine. In some cases differences in metabolism of calcium have been noted although very uncommon. Risk of skin tumor due to heightened light sensitivity.
- d. Zithranol-RR (anthralin): This is the Synthetic version of chrysarobin made from the south american tree called araroba. The synthetic substance is used to combat the rapid growth of skin cells. Side Effects: No know long term. Possible skin irritation. May stain clothing. (3)

2. **Inverse Psoriasis:** This type appears on creases and skin folds on the body, there is little to no scale and is smooth, yet still enflamed and red.(5)

Western Treatment: The treatment to Inverse Psoriasis is similar to Plaque but one is to head more caution because the areas that inverse generally shows up on are thin, topical steroid creams are absorbed more easily and can create symptoms that would not effect thicker skin.

To view steroid cream cautions you may visit this page on the National Psoriasis Foundation's webpage <https://www.psoriasis.org/about-psoriasis/treatments/topicals/steroids>.

To combat inverse psoriasis topically, research shows that Anthralin/coal tar soaps can be used as well as phototherapy.(5) Phototherapy uses Ultraviolet B light to reduce inflammation by suppressing the immune system. Patients are exposed for a few seconds to a few minuets two to three times weekly. SkinSight recommends 30 sessions to eradicate psoriasis, in combination with maintenance check ups or a home UV light box to be maintained without making the trip to an office. (6)

3. **Pustular Psoriasis:** A non contagious, non infection type of pustules with inflammation. It can cover large sections of the body or smaller regions. These are a list of triggers for pustular psoriasis listed on the National Psoriasis Foundation Webpage:

- Internal medications
- Irritating topical agents
- Overexposure to UV light
- Pregnancy
- Systemic steroids
- Infections
- Emotional stress
- Sudden withdrawal of systemic medications or potent topical steroids (8)

There are three types of Pustular Psoriasis that are mentioned by the National Psoriasis Foundation:

Von Zumbusch is most rare in children, but when present on a child it is commonly the first flare up for the child and has better results than adults. When it does occur in adults it must be treated immediately.

Von Zumbusch has associations of chills, anemia, weight loss and severe itching. secondly, **Palmoplantar pustulosis** or PPP Primarily shows pustules on the soles of feet and palms of the hand. **Acropustulosis** is very rare in all ages and can occur due to an injury to the skin or an infection, generally on the tips of fingers and toes. (8)

Western Treatment: Restore the skins chemical balance and prevent infection through multiple options for topical treatments as well as the phototherapy. Most varieties of pustular Psoriasis are said to be difficult to treat particularly with the use of steroidal creams because the sudden withdrawal of steroids can sometimes bring on an outbreak of Von Zumbusch. Treatments may require multiple try's for the right prescription, most doctors will attempt using topical treatments first and secondarily use the light therapy. (8)

4. **Guttate Psoriasis:** This type of Psoriasis appears on the trunk and limbs of people under 30(4) in the form of hundreds of separate red lesions similar in appearance to chicken pox. These lesions may be present on the scalp/face/ears as well. Often this type will coexist with plaque psoriasis(9) or it can be a result of an exacerbation of long term plaque psoriasis.

Know triggers for Guttate Psoriasis

- Upper respiratory infections
- Streptococcal infections
- Tonsillitis
- Stress
- Injury to the skin
- Certain drugs (including antimalarials and beta blockers)

Western Treatment: Topical creams are the most common, next is the light therapy and sometimes systemic medication treatments are recommended in small doses for this type of psoriasis. (9)

5. Erythrodermic Psoriasis: Erythrodermic psoriasis may result from a chronic case of Plaque Psoriasis. (4) Effecting most of the surface area of the body, in appearances, this type resembles widespread redness of large areas of the body with pustules. In combination with intense itching and pain. The National Psoriasis Foundations says "Individuals having an erythrodermic psoriasis flare should see a doctor immediately. This form of psoriasis can be life-threatening." (10) May cause edema, hot and cold flashes, congestive heart failure. The cause is unknown (10)but there are some known triggers:

- Abrupt withdrawal of systemic treatment
- Severe sunburn
- Allergic, drug-induced rash that brings on the Koebner phenomenon (a tendency for psoriasis to appear on the site of skin injuries)
- Use of systemic steroids (cortisone)
- Infection
- Emotional stress
- Alcoholism(10)

Western Treatment: Initial treatments include, topical steroid creams, oat baths and rest. With more severe cases, systemic medications are used, but one must use a tapering off method to ween the patient off slowly since some cases of psoriasis can flare back up from withdrawal from steroids. TNF-alpha blocking biologics are used to target the immune cells (T-Cells) that stimulate inflammation.

Phototherapy can be used in erythrodermic psoriasis as well, but not until the redness has dissipated from the skin. Pain and sleep medications are provided once the flare up has subsided.(10)



6. Psoriatic Onychodystrophy: (Nail Disease) Fingernails are involved in 50% of psoriasis cases and toenails in 35%(4)

The cause of Psoriasis is genetic (12) although scientists do not know which gene, they are still doing research to determine the specific genes that create all the different types of psoriasis and psoriatic arthritis outbreaks. What has been found by "Anne Bowcock, Ph.D., a professor of genetics at

Washington University School of Medicine in St. Louis, has identified a gene mutation known as CARD14 that when triggered leads to plaque psoriasis.” (12)

All known triggers include Stress, Injury to skin, Infection, Medications and although not recognized scientifically by the National Psoriasis Foundation, diet and allergies may trigger a flare up of psoriasis as well. (12)

What does stress look like in the body? Stress is manifested by our ancient dawn of being instinct of “fight or flight” when people encounter a situation with great emotions, fear, anger, surprise they are induced into the “fight or flight” sensation taking place in the sympathetic autonomic nervous system. The individual with a genetic predisposition to psoriasis may experience a flare up soon after this stressful time or situation in their life. As stated in the Pubmed research article “Relationship between the brain and the immune system” the connection is strong, the notion that the brain and the immune system are connected come from the theory of stress.(21) When cortisol levels are high, the body deals with stress quite well, as soon as the body stops masking the stress symptoms with cortisol, due to adrenal fatigue one may become sick due to a weakened immune system from the overload of cortisol response. This reaction is similar to what happens in the body with chemicals like caffeine. The caffeine masks the fatigue that one may be experiencing when they reach for the coffee, once they stop the coffee, their body is now weakened from the excess stimulation that their body was actually not able to handle on its own. The caffeine gave them a false sense of energy. They may need to take steps to build their strength, this is called building ojas in Ayurveda.

“The communication pathways that link the brain to the immune system are normally activated by signals from the immune system, and they serve to regulate immune responses.”(21)

What else does stress trigger? Many, many other symptoms and diseases including obesity, heart disease, Alzheimer's disease, diabetes, depression, gastrointestinal problems, and asthma. just a few to mention. (13)

What causes stress? jobs, children, traffic, relationships, self doubt, health, Money was ranked as the highest stress aggravator in the U.S “ In 2007, there was no difference in reported average stress levels between those who earned more and those who earned less than \$50,000.” (14) Multiple studies show that patients with psoriasis presented a higher cortisol release then people without psoriasis when put in stressful situations, this may be due to a cortisol dysregulation and could be treated with stress management techniques.(23) According to a questionnaire done in the Netherlands dermatologists refer 8 patients a year to a psychologist and 50% of dermatologists have never referred any patients to a psychologist or any other type of mental therapist that could help in stress reduction. (23)

Stress is relative, just like everything else in this world. Human beings are living their lives with high amounts relative to what is safe and healthy. (14) according to the article by Dennis Thompson written for Healthday on CBD news “Some people take other steps to reduce their stress. Listening to music, exercising or watching TV were reported by at least two out of five respondents as ways they reduce stress.”

What ways are there to reduce stress?

Yoga, nature, meditation, quiet, massage, overcome perfectionism, news and social media fast, laughter, positive affirmations, hugs...and many more calm, relaxing activities based on self love and community. “ Led by Sheldon Cohen, the Robert E. Doherty University Professor of Psychology in CMU's Dietrich College of Humanities and Social Sciences, the researchers tested whether hugs act as a form of social support, protecting stressed people from getting sick. Published in Psychological Science, they found that greater social support and more frequent hugs protected people from the increased susceptibility to infection associated with being stressed and resulted in less severe illness symptoms.”(15)

How to prevent and alleviate stress using dosha pacifying techniques:

Treating Vata driven stress triggers for psoriasis: Vata dosha is composed of air and ether, cold, dry and light. when an individual indulges in these qualities they vitiate vata this may lead to anxiety, stress, and other nervous system disorders including various pains. it is important to calm the mind and clear vritis (thoughts).

Stress reduction practices: abhyanga(lymphatic self massage), Meditation, yoga practice specifically hip compression poses, slow restorative yoga. avoid stimulation from food, drink and sensory impressions. limit technology use, taking breaks frequently. Ovoid meltdowns by making sure that the individual is sufficiently fed, incorporating regular routines around food for optimum digestion.

Herbs for stress reduction: ashwaganda, valerian root, oat straw, tulsi. to name only a few.

Diet: Heavy, dense, moist, warm foods eaten around regular routines.

Bliss Therapy: Shirodhara, Thailadhara, Takradhara, abhyanga,

Five Sense Therapy:

Color: Deep colors, orange, yellow, green, gold, brown, purple.(40)

Aroma: Jatamamsi, sandalwood, camphor, basil.(41)(39)

Touch: Bliss Therapy

Sound: Quiet Bija mantra Lum, Vum,Rum.

Taste: Pungent, Sweet, salty (38)

Treating Pitta driven stress triggers for psoriasis: Pita is fire and just a little water, it is light, dry in excess, hot, driven and sharp. These qualities drive pitta out of balance in excess. Pitta is prone to heat related disorders, like inflammation and anger.

Stress reduction practices: abhyanga with coconut oil and essential oil of lavender, rose, honeysuckle. meditation, yoga practice of heart opening poses. Avoid competitive activities or foods that impart any of the qualities mentioned above. Make time for family and try to leave work at work.

Herbs for stress reduction: Ashwaganda, brahmi, rose, lavender, chrysanthemum.

Diet: lots of cooked leafy greens, green juices, along with other cooling foods. Avoid: alcohol, caffeine, acidic and spicy foods.

Bliss therapy: abhyanga, heart basti, Takradhara.

Five sense therapy:

Color: Blue, gold, white, brown, violet(40)

Aroma: Lavender, rose, Honeysuckle(41)

Touch: Bliss therapy

Sound: Bijja mantra yum

Taste: Bitter, astringent, sweet.

Treating Kapha driven stress triggers in psoriasis:

Kapha is earth and water, when in combination this creates mud. Kapha becomes lethargic and longing of something that once was when out of balance. Stress looks more like lethargy and depression(44) unlike the high strung stress that pitta and vata experience. Kapha stress is a dullness, an overindulgence and excess of dhatu in the body and likely due to a blockage consisting of ama. What kapha needs is stimulation, exercise and cleansing if ama is present. Once they get moving they will stick with it, but starting on that routine and getting out of the depression is the hard part. If the patient has ama mild cleansing called palliation may be recommended or a full pancha karma treatment.

Herbs: Lekanas such as garcinia or other stimulating herbs like ephedra and bala although the best thing for kapha is to exercise first

Diet: light, warm, dry foods.

Five sense therapy:

Color: Red, orange, yellow, green, gold, blue, white, purple, violet(40)

Aroma: Basil, sage, cedar, patchouli(41) calamus.

Touch: Stimulating, dry brushing, fomentation.

Sound: Hum, yum, om.

Taste: pungent, bitter and astringent.

Ayurveda treats diseases at the root cause which according to sankhya philosophy resides in the mind when one forgets their true nature as spirit. (34)Disease can also be determined by samskaras, past life karmas that hold true in this life. It is a part of the journey in this life, and future lives to overcome these samskaras, they are placed here for us in many ways, through relationships, daily habits that may be harmful as well as fears. Disease in this lifetime can also be attributed to vrittis (disturbances) of the

mind, (34) when meditating these vrittis are calmed and the mind is wiped clean of worry or distraction. When the true nature as spirit is forgotten the ego dominates the body and mind, bringing three main causes for disease in the physical body:

1. “unwholesome conjunction of senses with the objects of their affection” (34) in other words when a person takes in through their senses things that bring them disharmony. Healed by five sense therapies to balance the doshas (faults)(35)
2. Prajnaparadha “Crimes against wisdom”(35) doing something even though one knows the inner voice inside is telling them not to.
3. Parinama “transformation or decay due to time and motion” This is referring to the concept that there is linear time, moving at a rate that we can not control, and there is biological time that slows down when the mind is less active.(35)

When Ama/toxins are formed, disease sets into the layers of dhatus. Due to the build up of ama/toxin the body is now susceptible to a number of diseases and is in need of purification, lifestyle and diet changes. The three humors or doshas are inside each living thing. When they are thrown out of balance due to one or more of the causes mentioned above the body is no longer in svastha and it is in need of multiple practices to help the individual on a pathway to health. Svastha, is the term used in Ayurveda for perfect health. Sva meaning self, the term svastha meaning “established in the self”. (33) The following is the Ayurvedic interpretation on the disease psoriasis.

Ayurvedic Perspective: Psoriasis is one type of kushtha (skin disorders according to Charaka the term for skin disorders is the same for worms, bacteria infections and leprosy).(25) According to the Indian Materia Medica Kushtha is also the name for a plant, the roots are used as medicine. Kushtha has strong antiseptic and disinfectant properties especially against streptococcus and staphylococcus it is also an expectorant and a diuretic.(22) Multiple Ayurvedic texts, articles and research studies classify the disease of psoriasis differently depending on the type. Ekakushta is a type of kushta,(24) there are 17 other types(28) In the Indian Materia Medica psoriasis is classified as Ticharchika which in other texts is used to describe eczema.(36)

Classical Nidana of kushta: Incompatible food and liquid combinations, heavy substances, suppression of natural urges particularly vomiting, exposure to intense exercise or heat post eating, exertion and fear, take in food while other food is not digested yet, use of contraindicated items while undergoing pancha karma, use of excessively new cereals (grains) curd, fish, salt and sour substances. Indulging in black gram, radish, rice flour preparations, sesame, milk and jaggery, perform sexual intercourse during indigestion, sleep regularly in day, insult brahmins, teacher (or other persons of respect) indulge in sinful activities.(25)

“Constant imbalance in the dietary habits and lifestyles, associated with the Karmic influence (Poorvajanma Kritham papam) leads to Mandagni (Poor Digestion), formation of Ama, This Ama

disturbs the Dhatu metabolism in rasa (nutrient plasma), rakta (blood), mamsa (muscles) and lasika (lymph) leading to Kitiba, if kitiba is not addressed in the initial stages it goes to the deeper Dhatu – Asthi causing joint symptoms.” (19)

Psoriasis is categorized in Ayurveda as a vata-kapha disease (16) or tri-doshic depending on the dominant dosha, if pitta is dominant virechana is administered during pancha karma. For Kapha dominance vamana (emesis) is administered during pancha karma and if vata is dominant Ghritapana (oral administration of medicated ghee) followed by an oil enema.(24) Pitta is there too because of the inflammation but it is vata, the dryness and taunts kapha to come to the rescue. In this reassurance we end up seeing an overproduction of skin cells on the torso, feet, extremities, scalp, face or genitals. The overproduction of skin cells is representative of larger quantity, lower quality a common occurrence with kapha imbalance. In a study done on the effects of certain herbal formula vs. another herbal formula using two groups that both had psoriasis symptoms, 63% of them were of Vata-Kapha prakruti, which led the experimentalists to infer that it is a possibility that since psoriasis is primarily vata-kapha disease that people of vata-kapha prakruti are more susceptible to the disease. Both formulas proved effective in the treatment of psoriasis. (43)

Below are generalized symptoms of kushta,

Vata dominance symptoms: Roughness, wasting, peircing pain, other types of pain, contracture, extensive hardness, coarseness, horripilation, blackish and reddish colors.

Pitta dominance symptoms: Heat, Redness, discharge, supperation, fleshy smell, moistness, falling down of organs.

Kapha dominance symptoms: Whiteness, coldness, itching, stability, raising, heaviness, eating away by maggots and moisture. (27)

Classical Chikitsa (treatment):

As stated in the Charaka samhita if the kushta is in the upper part of the body the *vamana performed would consist of:* indrayava, madanaphala, madkuka and patola mixed with nimba (neem) juice.

Formula for purgation: Danti and Triphala with an anupana of vinegar or fermented liquors. (29)

Post purgation enema formula: daruharidra, brhati, usira, patola, nimba, madana, aragvadhha, indrayava, and musta, (29)

External applications: “the diseased spots which are stable, hard and patchy should be fomented by means of stone slab and tubes, and therefore rubbed with a brush.” it is then stated by Charaka that the spot may be fomented with a “ bundle of meat of marshy and aquatic animals” heated and then scrape the skin with a sharp instrument so that blood is let out. Leaches may also be applied at this time to let out the toxic and impure blood.(30)

In cases where the skin is more sensitive to pain, “in the spot that is stony hard, rough, benumbed, stable and old. (exhibiting vata-kapha symptoms) the patient takes an anti-poison drug, then the spot is anointed with poison preceded with anti-poison then rubbed with a mixture of danti, trivrtta, karavira, karanja, or dried cow dung piece before oil application.

If pitta is involved an application internal and external of bitter herbal infused ghee is used in combination with the above.(30)

Internal applications:

Remedy for itching and rashes: musta, trikatu, triphala, manjiastha, devadaru, dashmula, bark of saptaparna and nimba, visala, citraka and murva-powder. combine with nine parts of saturating preparation in combination with honey and ghee. (31)

Remedy that alleviates the 17 forms of kushta: Fresh butter with juice of jati mixed with honey or copper pyrite taken with urine.(31)

“ This should be taken in kushta caused by vata and kapha and also in that caused by pitta”:

the decoction of khadira 10.24 litres should be kept in a vessel smeared with ghee. Add to this powdered triphala trikatu, vidanga, haridra, vasa, indrayava, bark of nagakesara and gaduci each at the proportion of 240 gm. Keep for one month set in grain paddy. take every morning for one month. “by taking this one regains shining complexion like that of gold”(32)

Diet: Light old cereals, bitter vegetables, ghrtas mixed with bhallataka, triphala, and nimba. meat of wild animals, green gram, and patola (herb and vegetable) Contraindicated Foods: Heavy, sour, milk, curd, marshy fish, Jaggery and sesame.(37)

Modern Ayurvedic Chikitsa:

The order of support for the body in treating psoriasis will need to be altered case by case depending on constitution and strength of the patient but in general working with constitutional appropriate pacifying diet during purva karma (techniques for preparation) lasting 3-21 days to strengthen and regulate agni(digestive fire). The procedure of Pancha karma, Pradhana Karma (Techniques for elimination) lasting 5-10 days these techniques are purifying all dhatus of ama(18). Virechna to cleanse the intestines and colon of ama. In a study done on the effects of virechana using the herb danti like mentioned above in the classical chikitsa. The study found that in the strong patients the purgation was successful without discomfort, in weaker patients there was vomiting along with purgation and painful cramps.(42) Leaches are used to cleanse the blood as well (not legal in the U.S). (16)Vamana to release the kapha and ama from the stomach(16) and avalambaka, the store house of kapha located in the chest and throat storing phlegm and mucus. Internal blood purifying herbal remedies can be taken as well.(16) included in pancha karma two other cleansing practices may be appropriate externally to aid in the skin irritation and scales. Thailadhara which is a warm oil shower, stimulating nerve endings and inducing perspiration leading to

expulsion of toxins through sweat. Takradhara is a milk bath similar to thailadhara, warm milk is poured over the patient in cases of dandruff, stress, headaches, weak digestion and anorexia (lack of appetite) the warm milk is let to waterfall cascading onto the forehead and around the ears followed by a head massage. With psoriasis the warm milk is applied to the effected area in the same fashion, this treatment brings a calmness aiding in insomnia and can alleviate stress related issues. (17) Once a patient has completed the duration of pancha karma, following pancha karma procedures, one is suggested to follow up with pradhana karma (rejuvenation therapy) lasting from 21-28 days. (18) Total time for Pancha Karma is about 1-2 months. It is imperative that the patient is given instructions and continued guidance towards changing lifestyle habits to insure the best health of the patient. This will include the instructions on diet of samjarnakrama following manda-pela-vilepi to slowly introduce the digestive system into solid foods, manda is mostly broth with maybe a bit of well cooked kichadee. Pela adds in a thicker kichadee but still not solid. Vilepi is almost to the solidity of kichadee but very much liquid and then kichadee, cooked rice and split mung dhal with well cooked dense, sweet vegetables spiced appropriately to constitution. The patient follows this procedure for however long it takes for them to not experience any digestive symptoms. If the patient does not make dietary and lifestyle changes they will eventually land back in the same pattern possibly leading to psoriasis outbreak again. Since psoriasis is a genetic, autoimmune disorder the patient has a predisposition to it, although it is up to them to decide weather to pacify and ovoid triggers noted in the western treatment section. It is eventually considered possible under the theory of epigenetics to alter the genes passed on to the patients offspring. Using Ayurvedic diet and lifestyle habits to create a new path and overcome the past karma's and samskaras that led to the existence of psoriasis.

Ekakushtha as described by charaka,"that which does not perspire, is extensive and like fish scales"(26) All kushta is tridoshic states Charaka, it is the prominent dosha that is treated first. "doshas are known from the specific type of kushta and vice versa, similarly causing factor is known from them and these are known from the causing factor itself." (27) This may be interpreted to show that one must know the deeper cause of a disease, and the causes should give insight to which dosha is responsible based on characteristics of the cause, leading one to conclude which type of kushta one may be experiencing. Guidelines for achieving svastha.

Regulate Agni (digestive fire) through herbs and Guidelines for healthy eating, wholesome and beneficial habits.

Removing ama through Pancha Karma and through out life by maintaining all the guidelines for healthy eating and cleansing herbs which are taught and provided by a practitioner. Avoiding the main causes of disease mentioned earlier.

Strengthening of dhatus through Pradhana Karma. Use of rasayana herbs providing tonification and strengthening of dhatus.

The Charaka Samhita mentions multiple Kushta (skin conditions) although does not go into the specifics of ekakusta (psoriasis) like current medical information. Through the Ayurvedic lens all psoriasis is treated similarly with consideration to doshic constitution, and the dosha that is driving this tri-doshic disease, although it is generally vata-kapha. In conclusion the disease of psoriasis is believed to be of autoimmune and genetic lineage although by treating the root cause of the symptoms through Ayurveda the disease could one day be minimized in the severity through given lifestyle practices and preventative stress reduction methods to avoid a trigger. Preventing multiple other diseases and disorders in the process.

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