



A Critical Review of Daus-Sadaf (Psoriasis): Unani & Modern Perspectives

Dr. Ashfaque Ahmad¹, Dr. Farzana Khatoon², Prof. Badrudduja Khan³, Dr. Mohammad Mohsin⁴

Assistant Professor¹, Assistant Professor, EUMCH Lucknow², Professor AMU Aligarh³, Associate Professor AMU Aligarh⁴

Department of Moalejat, Hayat Unani Medical College, Lucknow, U.P¹

ABSTRACT

Background: Psoriasis is chronic inflammatory skin disorders clinically characterized by erythematous, sharply demarcated papules and plaques covered by silvery micaceous scales. Daus-Sadaf is the Arabic term of psoriasis composed of two words. Da-disease, & Sadaf - molluscum shells, since in this disease shell like silvery white scales or flakes keep on shedding from horny layer of skin. Unani scholars described psoriasis with discussing other skin disease having similar clinical and morphological features. They have, described Taqasshur-wa-Qasaf-e-Jild (Ichthyosis) in their writings which is resembled with sign & symptoms of psoriasis

Aims and Objectives-

To put forth a concrete and clear concept of Daus sadaf (Psoriasis) in light of Unani concept as well as modern perspectives.

To make people aware about Unani humoral aetiology regarding pathogenesis of psoriasis.

Material Methods- Humoral theory proposed by *Buqrat* (Hippocrates), serves the key role in the aetio-pathogenesis of all the idiopathic diseases in general and psoriasis in particular. Almost all Unani physicians believed that it is a *Saudavi* (Melancholic) disease. It occurs due to the *Sauda-e-Mohtaraq*, *Merah-e-Safra* / *Balgham-e-Merari*, indigestion, uncleanness, cold, and uses of dry-salty diets

Conclusion & Future Perspective- After Scientific validation and knowing of Unani as well as modern perspectives of psoriasis, there will be many doors are open regarding prevention, diagnosis and treatment of diseases.

Keywords: Unani system of medicine, Taqasshur Jild, Da-us-sadaf (Psoriasis), Saudavi (Melancholic)

INTRODUCTION:

In Unani classical literature *Daus Sadaf* is not vividly described as such same nomenclature. Though several and allied conditions are mentioned in Unani texts with different names. The terminology *Daus Sadaf*, was given much lately but there are some references of the descriptions of disease in the ancient texts of almost every renowned Unani physicians. They have described psoriasis with discussing other skin diseases having similar clinical and morphological features based on their own observations and experiences.

Definitions: There are many definition of psoriasis described as different physicians like,

➤ Psoriasis is a chronic dermatosis characterized by an unpredictable course of remissions relapses and presence at typical sites of well defined, erythematous papules and plaques, which are surmounted with large loose silvery scales. There is frequent nail and joint involvement.¹

➤ Psoriasis is chronic inflammatory skin disorders clinically characterized by erythematous, sharply demarcated papules and plaques covered by silvery micaceous scales.²

➤ Psoriasis is a common, chronically recurring papulo-squamous disease, characterized by varying size whitish scaly patches seen most commonly on the elbow, knees and scalp.³

➤ Psoriasis is a non-infectious, chronic inflammatory disease of skin, characterized by well-defined erythematous plaques with silvery scales, with a predilection for the extensor surfaces and scalp, and chronic fluctuating course.⁴

➤ The psoriasis can be defined as non-infectious and therefore non-contagious dermatosis in which the pathological changes in the dermis and in the upper dermis produced distinctive clinical pictures such as well-circumscribed erythematous, dry plaques of various sizes.⁵

➤ The psoriasis can be defined as non-infectious and therefore non-contagious dermatosis in which the pathological changes in the dermis and in the upper dermis produced distinctive clinical pictures such as well-circumscribed erythematous, dry plaques of various sizes.⁶

Incidence and Prevalence: Psoriasis is a serious global problem with at least 100 million individuals affected worldwide. It occurs in all countries and individuals of all ages, prevalence of psoriasis defined ranges between 0.09% and 11.43%. According to a 2001 study in the United States, individuals with Caucasian or Black ancestry and others had a prevalence of 2.5%, 1.3% and 1.0%, respectively. In another United States study from 2009-2010, these differences were higher, with the prevalence for Caucasians, Blacks, Hispanics and others at 3.6%, 1.9%, 1.6% and 1.4%, respectively. According to another study, overall sex-age-adjusted incidence rate of psoriasis in Minnesota in the United States, between 1980 and 1983, was estimated at 0.60 per 1000 person-years.⁷ A systematic review of international population-based studies showed that there are wide variation found in the global prevalence of psoriasis.⁸ Prevalence of disease rises to increase with increasing distance from the equator. A systematic worldwide review found the prevalence of psoriasis ranged from 0.5 to 11.4 percent in adults and 0 to 1.4 percent in children.⁹ A bibliometric study conducted on Indian psoriasis research in 2013 shows contribution of Indian researchers in the area of psoriasis. According to published reports, prevalence in different populations varies from 0% to 11.8%.⁶⁵

¹⁰⁻¹⁴ In the USA, the prevalence of psoriasis was estimated to be around 4.6% while in Canada it was 4.7%. Data from Europe show little variation in countries with a range from 1.4% (Norway), 1.55% (Croatia) and 1.6% (UK). In East Africa, the figure was 0.7%, in the Henan district of China only 0.7% was found affected.¹⁵ In 2001 and 2005, a study in Italy reported an incidence of psoriasis (in adults) of 2.30–3.21 cases per 1000 person-years. In India prevalence of psoriasis varies from 0.44 to 2.8%, it is twofold more common in males in comparison of females, and most of the patients are in their 3rd or 4th decade at the time of presentation. Prevalence studies from India are mostly hospital based. A study was done in medical colleges of Dibrugarh, Calcutta, Patna, Lucknow, New Delhi and Amritsar. It was found that the incidence of psoriasis among total skin patients ranged between 0.44 and 2.2%, with overall incidence of 1.02%. It was noted that the incidence in Amritsar (2.2%) was higher as compared to other centres in Eastern India and indicated that it may be related to different environmental conditions, like extremes of temperature), dietary habits, and genetic factors. The ratio of male to female (2.46:1) was very high. Highest incidence was noted in the age group of 20-39 years and the mean age of onset in males and females was comparable.¹⁵ Psoriasis affects both sexes equally but females tends to develop Psoriasis slightly earlier than males.¹⁶ However, in India psoriasis is more prevalent in male than female.¹⁷

Aetio-Pathogenesis: Etiology of *Daus Sadaf* is multifactorial and not completely understood.¹⁸ Scientists believes that, psoriasis occurs due to result of several factors, including genetics, environmental, and immune system. It is a disease of T cells, with interplay of genetic factors (PSORS 1-8 genes), and environmental influences (physical, trauma, infections and drugs etc.).¹ Family history is also common, and certain genes and HLA antigens (Cw6, B13, and B17) are associated with psoriasis. An environmental trigger is also thought to evoke an inflammatory response and subsequent hyper-proliferation of keratinocytes. The etiology of psoriasis is unclear but the Humoral theory proposed by *Buqrat* (Hippocrates), serves the key role in the aetio-pathogenesis of all the idiopathic diseases in general and psoriasis in particular. Humoral theory states that, certain errors in the body functions even in the mood, emotions and behaviors were caused by an excess or lack of humours (body fluids) and an alteration in their qualities.¹⁹ Almost all Unani physicians believed that it is a *Saudavi* (Melancholic) disease. It occurs due to the *Sauda-e-Mohtaraq*, *Merah-e-Safra* / *Balgham-e-Merari*, indigestion, uncleanness, cold, and uses of dry-salty diets.²⁰ Psoriasis has its genetic preponderance as well as of environment sensitivity, thus has variations in its clinical presentation, individual susceptibility response to a particular treatment etc. There are following causative factors of psoriasis:

I.Humoral Factors: According to Unani Medicine, there are many types of abnormal *Khilt* which responsible for the diseases like, altered *Khilt-e-Sauda* (black bile), *Safra-e-Ghair Tabayee* (morbid black bile), *Safra mutahrrika* *Mirrah sauda* *Muhtaraq* *Khilt-e-Sauda* (charred black bile), *Khilt-e-Hareef wa Laza*, *Khushk boraqi madda*, *Zojaji Balgham*, *Ratubat Raddia Hadda Akalah*¹⁸ *Balgham-e-shor*,¹⁸ *Balgham Malih* & *Mutaffin raqeeq bokharat ratubiya mutakharajah*.¹⁹ Body excretes abnormal humours in form of viscid fluids which moves towards the skin and forms crests that cause malnourishment of the skin. Toxins accumulate in the skin and decaying of skin appears in the form of scales. *Sauda-e-Muharraaq* (charred black bile), *Ghaleez Mutaffin Balgham* (viscid putrid phlegm) causes extreme dryness in the body.²¹

II. Hereditary Factors: Genetic factors are probably involved as demonstrated by the family character of the disease. Therefore, heterogeneity of disease susceptibility has been suggested since different susceptibility loci for psoriasis have been identified in different groups of populations. HLA is the main genetic factor responsible for the inheritance which is located on chromosomes 6 i.e., HLA CW6 as the studies of familial component¹ & twins to psoriasis suggests a heritability of around 80%. In monozygotic twins maybe one-third of pairs will be concordant for psoriasis. Experimental studies indicate, if one parent has psoriasis, then the chance of a child being affected is in the order of 15-20%. If both of parents have psoriasis, risk is 50 percent. Both these estimations are increased if one sibling already has the disease.⁴ The evidence implicating a key role for an immune pathogenesis also related to the reports of the development of psoriasis in recipients of bone marrow transplants from donor with a history of psoriasis.⁴ Approximately 30% of patients with psoriasis have a family history of disease.³ In psoriatic skin, gene mutations are found which is known as alleles. In 1980, it was belief that one specific allele might be responsible for passing on the disease through families. Scholars later discovered that the presence of this allele (HLA-Cw6), wasn't sufficient to cause a person to develop the psoriasis. Further, it was also discovered that IL-17 play a critical role in the pathogenesis of psoriasis, suggest an autoimmune nature of this immune-inflammatory skin disease. With advancement of more techniques has led to the identification of almost 25 different regions in the human genome that may be associated with psoriasis.²² 40% of psoriatic arthritis patients have a first degree relative with psoriasis. HLA-B7 and B27 are found more commonly with psoriatic arthritis patients compare to remote skin lesions. HLA-B27 is found almost 40% of patients with psoriatic arthritis. HLA-DR4 is also associated with poly-articular psoriatic arthritis. HLA-B39, B27 AND dqw3 are reported to be associated with progression of disease. Separate gene locus on chromosome 16 is associated with psoriatic arthritis with inheritance from father stronger than from the mother.²³ 50% of patients with psoriasis report a positive family history & according to National Psoriasis Foundation up to 30% patients with have psoriatic arthritis.² Indian studies report lower familial incidence of the disease. Bedi reported positive family history of psoriasis in 14% of their patients. While Kaur *et al* reported family history in only 2% of their patients. First degree relatives were affected in 84% of the cases while second degree relatives in 12% cases. At first Ibn-e-Rushd explained genetic causes and said that, the inheritance is produced by genetic basis temperamental imbalance of humour, as a factor in the development of disease.

III. Environmental Triggers: Certain environmental factors may trigger the psoriasis genes, causing the disease to become active. These environmental triggers vary from person to person, and what causes psoriasis to develop in one person may have no effect on someone else. Some triggers known to impact psoriasis symptoms include like, emotional triggers, trauma, infections, and certain drugs etc.

a. **Stress:** According to Unani physicians, psychogenic stress and psoriasis aggravates each other making a vicious cycle & under the influence of psychogenic stress, there is excessive production of Black Bile which leads to psychogenic diseases. Stress triggers the release of corticotrophin-releasing hormone (CRH) and substance P, both of which are found in psoriasis plaques and stimulate mast cells to release tumor necrosis factor-alpha (TNF-alpha) a key player in psoriatic disease. CRH has also been found in the joints of people with inflammatory arthritis, such as psoriatic arthritis. According to the American Academy of Dermatology also, having psoriasis is stressful in itself, which contributes to outbreaks, too. That's why it's crucial to make stress management a key component

of psoriasis treatment plan and so many drugs are used such as Enbrel (etanercept) and Humira (adalimumab), block TNF-alpha, these drugs might also block TNF-alpha's disruption of serotonin in the brain.²⁴

b. **Trauma:** Some occupational employment can causes lesions of psoriasis due to frequent injuries on skin. This condition is called "Koebner phenomenon or isomorphic phenomenon."³

c. **Smoking:** There are major role of smoking in the early development of the disease. Uses of tobacco increases the risk as well as severity of the psoriasis.

d. **Infections:** Some types of Infections also aggravate the psoriasis.⁷⁷ Beta Haemolytic Streptococcus infection is associated with guttate psoriasis.¹ It was well-known that, only in Type 1 psoriasis, streptococcal infection was found HLA Cw6 allele bearing patients. The incidence of positive streptococcal parameter in Type 1 psoriatic patients was higher than other patients with no HLA Cw6 allele.²⁵

e. **Drugs:** Beta-adrenergic blockers, antimalarial agents, nsaid, and tetracycline are among the most commonly reported drugs to trigger lesions or to exaggerate psoriasis. Certain drugs, such as lithium (common drug for bipolar disorder), Iodide, Progesterone, salicylates and nystatin can cause flare-ups of psoriasis symptoms. Lithium prescribed in manic depression. It aggravates psoriasis in about half of those with psoriasis who take it.¹ Antimalarial: After the uses of Quinacrine, chloroquine and Plaquenil for two to three weeks may cause a burst of psoriasis. Hydroxychloroquine is the least likely to cause side effects.¹ Antihypertensive Drugs: Antihypertensive drugs aggravate psoriasis is 25 percent to 30 percent of psoriatic patients who take it. It is not known if all high blood pressure (beta blocker) medications worsen psoriasis, but they may have that potential. Quinidine: This heart medication has been reported to worsen some cases of psoriasis. Nsaids: Indomethacin is a nonsteroidal anti-inflammatory drug used to treat arthritis. It has worsened some cases of psoriasis. Salicylates, meclufenamate, phenylbutazone, oxyphenylbutazone and ibuprofen.¹ Withdrawal from systemic corticosteroids can also be a trigger or may precipitate explosive psoriasis.¹

f. **Sunlight:** It might be influenced by climatic factors such as sun exposure and humidity. According to Ibne Sina, psoriasis occurs commonly in winter season and its worst type occurring in spring season. Natural sunlight rays are effective in treating psoriasis symptoms because they slow the rapid rate of skin growth and shedding but too much sun can aggravate psoriasis and trigger flashes and increase the risk of skin cancer. Worse in winter usually, because of low winter indoor humidity and relative lack of humidity.³

g. **Diet:** According to Ibn-e-Rushd, excessive use of spicy, salty and dry foods may cause the psoriasis.²¹ Renowned Unani physician Majoosi also said that skin diseases like, dry or moist itching, peeling of skin surfaces & boils always occurs in that person who eat stale diet frequently which produced bad humours in the body.

h. **Obesity:** Excess weight increases the risk of psoriasis. Lesions (plaques) associated with all types of psoriasis often develop in skin creases and folds.

IV. **Endocrinal Factors:** Sex hormones and prolactin have a major role in psoriasis pathogenicity, there are a lot of other hormones which can influence the psoriasis clinical manifestations such as glucocorticoids, epinephrine, thyroid hormones, and insulin.

V. **Pregnancy:** The evolution of psoriasis is variable during pregnancy. At mid pregnancy (around 30th week of gestation), the patients' psoriatic symptoms can diminish (in >50%) or worsening (in >20%). A possible explanation

could be that at this moment, there is an immunity shift from Th2 to Th1, mainly due to the increased levels of estrogen, progesterone and cortisol.⁸¹

Pathogenesis:

There are two main hypotheses about the development of psoriasis. The first hypothesis considers psoriasis as primarily a disorder of excessive growth and reproduction of skin cells, in which psoriasis is a manifestation of a fault of the epidermis and its keratinocytes. The second hypothesis views the disease as an immune-mediated disorder in which the excessive reproduction of skin cells is secondary to factors produced by the immune system.

²⁶Psoriasis is a multi-factorial skin disease with a complex pathogenesis. Various factors which have been suggested to play a key role in the pathogenesis are T cells, antigen presenting cells (APC's), keratinocytes, Langerhans' cells, macrophages, natural killer cells, an array of Th1 type cytokines, certain growth factors like vascular endothelial growth factor (VEGF), keratinocyte growth factor (KGF), and others. Now, Current hypothesis is that, Psoriasis is a t-cell mediated, autoimmune disease & antigen specific memory T-cells are primary mediators which Leads to impaired differentiation and hyper-proliferation of keratinocytes.^{1, 32-51}

TYPES OF PSORIASIS: The critical studies have shown that there is strict correlation between early manifestation & HLA-CW6 antigen shows the non-pustular psoriasis initially can be defined into two types as follows:

I.Type I

II.Type II

I.Type I (Early onset Psoriasis): It is related to early age of life which occurs before the age of 40 years and associated with HLA-CW6 antigen. There is an increased familial occurrence in it.

II.Type II (Late onset Psoriasis): It occurs after the 40 years of age and there is no relation with HLA- Cw6 antigen.

^{51, 1} Clinically, there are several types of psoriasis. These include, 1.**Chronic Plaque psoriasis: / Nummular Psoriasis/ Psoriasis vulgaris:** The most common form of psoriasis, approximately 90 percent of all cases. It characterized by well demarcated margins, red lesions (erythematous), covered with silvery white scales.^{2, 27} Initial lesions are discoid but may merges to form gyrate, polycyclic and geographic plaques, central clearing results in annular lesions. Size & numbers of lesions may be variable. Size of lesions varies from coin size to large palm size. There may be few or many itchy or painful lesions. They can occur anywhere on body, typically affects elbows, knees, scalp, lumbo-sacral area, inter-gluteal cleft, umbilical area genitals & soft tissue of mouth. In glans, some features of psoriatic lesions, like scaling may be absent. If coin sized lesions predominate, called as nummular psoriasis and if palm size lesions predominant, known as psoriasis geographica. In minimal psoriasis lesions are localized and, in generalized or universal psoriasis, involving whole of the body.^{2, 27}

2. **Guttate psoriasis:** Guttate psoriasis primarily affects young adults and children typically seen in individuals < 30 years. It's usually triggered by a bacterial infection such as streptococcal throat infection. It's marked by small, water-drop-shaped, scaling lesions on trunk, arms, proximal limbs and scalp.^{2, 27} Lesions are covered by a fine scale and aren't as thick as typical plaques are. There is single outbreak or repeated episodes of this type of psoriasis.

3. **Inverse psoriasis/ Flexor psoriasis/ Intertriginous:** This mainly affects the skin in the armpits, in the groin, axillae, sub-mammary regions and around the genitals. Inverse psoriasis causes smooth patches of red, sharply defined plaques with macerated surface.^{2, 85, 27} Inflamed skin worsens with friction and sweating, scaling is absent

or minimal. Fungal infections may trigger this type of psoriasis. It occurs mainly in elderly females, less frequently in males.^{1, 51}

4. Erythrodermic psoriasis: The least common type of psoriasis, erythrodermic psoriasis can cover entire body with a red, peeling rash that can itch or burn intensely. May evolve slowly from chronic plaque psoriasis or appear as eruptive phenomenon. Patients may become febrile, heat loss are in danger of hypothermia, water loss, leading to dehydration because of the disturbed barrier function of the abnormal stratum corneum.^{51, 1}

5. Pustular Psoriasis. This is rare and severe form of psoriasis, characterized by flat sterile, non-follicular pustules of variable diameter ranging from 1 to 5 mm.^{2, 27} Pustular psoriasis described in two types,

i. Generalized Pustular Psoriasis

ii. Localized Pustular Psoriasis

i. Generalized Pustular Psoriasis: It is also known as Von Zumbusch psoriasis. It is most severe form & occurs rarely. It appears abruptly on the skin with large numbers of small sterile pustules, erupting on red base. It is associated with swinging fever, chills, severe itching, dehydration, tachycardia, exhaustion, anaemia, and weight loss and muscle weakness. This form can be life-threatening and requires immediate medical care.

ii. Localized Pustular Psoriasis: This is also known as Palmoplantar pustulosis (PPP). This chronic form associated with tobacco use. It causes pustules on the palms of the hand and sole of the feet.⁶⁷ Pustules initially appear in a studded pattern on top of red plaques of skin, which do not rupture but turn dark brown and scaly as they reach the surface. As seen in *acrodermatitis continua of Hallopeau* in which skin lesions occurs on the ends of the fingers, nail beds and sometimes on the toes.^{51, 1} The eruption occasionally starts after an injury to the skin or infection. The lesions can be painful and disabling, and cause deformity of the nails. Occasionally bone changes occur in severe cases.

1. Psoriasis Unguis (Nail psoriasis): Psoriasis can affect fingernails and toenails, causing pitting, abnormal nail growth and discoloration. Fingernails are more often involved than toenails. Involvement of nail Psoriatic nails might loosen and separate from the nail bed (onycholysis). Severe cases may cause the nail to crumble. It May be present in patients with any type of psoriasis can take several forms, pitting: discrete, well- circumscribed depressions on nail surface. Nail findings offer supporting evidence of the diagnosis when the skin changes are absent.²⁷

2. Scalp Psoriasis: Scalp is involved in approximately 60 % of patients with psoriasis. It may be affected alone, or as a part of psoriasis vulgaris in which marks raised, reddish, often scaly patches. It is found in the form of a single patch or several, and can even affect entire scalp. Palpation of the scalp gives a miniature mountain feel.²⁸ It can also spread to forehead, back of neck, behind and inside ears. If it involve, forehead then it known as corona psoriatica.²⁸ Patient scratching may produce asymmetric plaques. Temporarily hair loss is common on affected area of scalp but permanent hair loss occurs rarely.

3. Mucosal psoriasis: Mucosal involvement is an important clinical feature of psoriasis, although less frequent than cutaneous manifestation. Psoriasis may involve transition epithelia of the mouth and genitalia, and the oral and genital mucosal surfaces.

4. Psoriasis on Palm & Soles (Palmoplantar psoriasis): Palmo-planter psoriasis may occur with or without lesions at, other sites. The lesions are sharply demarcated with firmly adherent scales, fissuring may occur.^{2, 27}

5. **Psoriatic Arthritis:** It is an inflammatory arthritis generally with a negative rheumatoid factor⁸⁸ & approximately 5–20% associated with Psoriasis. In addition to inflamed, scaly skin, psoriatic arthritis causes swollen, painful joints that are typical of arthritis. Sometimes the joint symptoms are the first or only manifestation of psoriasis or at times only nail changes are seen. Symptoms range from mild to severe and psoriatic arthritis can affect any joint. So there are five major patterns of psoriatic arthritis, distal inter-phalangeal involvement, symmetrical polyarthritis, psoriatic spondylarthropathy, arthritis mutilans, oligo articular and asymmetrical arthritis.
6. **Napkin:** Napkin psoriasis is a variant of psoriasis and is characterized by macerated, sharply demarcated, and bright erythematous. Plaques that can also spread to other areas of the body, especially in infancy. It affects mainly children younger than 2 years of age and can be classified together with other diseases under diaper rash.
7. **Ocular:** In approximately 10 % reported synchronous or following general lesions. Following conditions are common in ocular psoriasis, blepharitis, conjunctivitis, keratitis, xerosis, symblephran. It also occurs as a complication of psoriasis treatment like, retinoid, psoralen, and U V treatment.²⁹
8. **Clinical features:** Psoriasis can be extremely variable in morphology, distribution, and severity. Morphology of psoriasis can range from small tear shaped papules (guttate psoriasis) to pustules (pustular psoriasis), generalised erythema and then scale (erythrodermic psoriasis). These types of psoriasis may be disabling, localised or extensive. Further, psoriasis may have a variable course presenting as stable plaques, chronic, acute or with a rapid progression and widespread involvement. It may be symptomatic with patients complaining of intense pruritus or burning.⁹⁰ Lesions are classically distributed symmetrically on the scalp, elbows, knees, lumbosacral area, and in the body folds. Sometimes, psoriasis may involve the oral mucosa or the tongue. When the tongue is involved, the dorsal surface may have sharply circumscribed gyrate red patches with a white-yellow border. The patches may evolve and spread, changing on a daily basis, can assume distinct annular patterns and may resemble a map, hence the term geographic tongue. General symptoms of psoriasis included, scaly reddish patches, dry and cracked skin prone to bleeding, flaky skin, itching, burning & soreness in the affected area, joint stiffness, discoloured, ridged and thickened nails and swollen and stiff joints.

Signs of Psoriasis:

1. **Koebner or Isomorphic Phenomenon:** Appearance of typical lesion at the sites of trauma, injuries, over the extensor surface of uninvolved skin, called Koebner or Isomorphic Phenomenon.²⁸ It is the characteristic feature of the disease. Koebnar phenomena described by Heinrich Koebner in 1878.
2. **Woronoff Ring:** Occasionally a white blanching ring is seen around the psoriatic lesions known as Halo or Woronoff Ring.
3. **Candle Grease Sign:** On scraping the white amorphous scales resembles wax candle, known as Candle Grease Sign.
4. **Berkley Membrane:** When the scales are completely scraped off, thin peel like stratum mucosum (basement membrane) is exposed and a moist red surface is seen known as Berkley membrane.⁸⁸
5. **Auspitz Sign:** Wet surface with multiple Pint points bleeding are observed after removal of scales of lesions, termed as Auspitz Sign.

6. **Oil Spots or Oil Drop Sign:** Nail involvement is common and is seen in 30 percent of the cases. Affected nails become like dents made with a ball point pen; tan-oval spots of 2-4 mm in diameter, is called Oil Spots or Oil Drop Sign.

7. **Olfleck Phenomenon:** Nail plate becomes discolored, brownish red, oval or round lesions can be seen resulting from an accumulation of para keratotic material in the nail bed this is known as Olfleck Phenomenon.

8. **Spongiform pustule of Kogoj:** On microscopic examination, A pustule of psoriasis consists of clusters of neutrophils in the spinous zone (a microabscess of Munro), in sponge-like array in the upper part of the epidermis (spongiform pustule of Kogoj), beneath the normal stratum corneum (subcorneal pustule), or within parakeratosis (intracorneal pustule).³⁰

Diagnostic key points of psoriasis: On the basis of clinical features there are following diagnostic points of psoriasis.³¹

1. Erythematous scaly plaques
2. Well defined border
3. Scales dry loose and micaceous
4. Koebner Phenomena
5. Auspitz sign positive
6. Regular, circular pits on nails
7. Involvement of distal interphalangeal joints of fingers and toes
8. Histopathological; spongiform pustules of Kogoj.

Differential diagnosis of psoriasis: In the majority of cases the diagnosis of psoriasis is usually easy if clinical features are borne in mind. Atypical cases may create diagnostic problems. There are following conditions must be mainly consider as differential diagnosis.

1. **Seborrheic Dermatitis:** Scaly red rashes on the scalp can be caused by seborrheic dermatitis.^{2, 32} *Scaly patches are diffuse, ill-defined and most of the hair is matted* and tangled in the greasy crust. The body lesions affect the flexors, external and inter scapular regions. The difference is that psoriasis of the scalp often has significant thickening of the skin and thick adherent scales. Seborrheic dermatitis, in contrast, usually just has some pinkness of the skin of the scalp with much finer scales. Seborrheic dermatitis often involves the eyebrows and the sides of the nostrils as well, so sometimes, the involvement of these areas will help to separate this disease from psoriasis.

2. **Eczema (Dyshidrotic hand/ foot eczema):** More vascular than pustular.

3. **Pityriasis Rosea:** It is characterized by appearance of multiple, oval, well defined, erythematous scaly eruptions, disposed along the body cleavages, resembling an inverted Christmas tree. A short history, centripetal distribution, a herald patch typical oval lesions with cigerrate pepper like centrifugal scaling.³²

4. **Tinea capitis:** It is also known as "ringworm of the scalp," is a fairly common cause of scalp rashes in children between the ages of three and seven. It's important for parents to recognize that the infection is not caused by a worm, but rather a fungus.

5. **Tinea Corporis:** Start with erythematous itchy papules & progresses to form circinate lesions.⁸⁸ Diagnosis confirm by potassium hydroxide examination.

6. **Candida Albicans:** Candidiasis is a condition caused by the yeast *Candida albicans*. Perhaps best known for its role in causing thrush and diaper rashes in babies and vaginal yeast infections in women, Candida often causes rashes in the armpits, the groin, and beneath the breasts which can appear very similar to psoriasis. It may resemble flexural psoriasis. Demonstration of fungus is diagnostic. ²⁸

7. **Secondary syphilis:** History of painless genital sore, cutaneous rashes associated with mucosal lesions are positive. Lymphadenopathy and coppery scaly papules also found on the palms and soles. Diagnosis is confirmed through serological test for *Treponema pallidum*.

8. **Lichen simplex:** It occurs particularly on the scalp and near the elbow having intensified skin markings, ill-defined edges and marked itching are characteristic of lichen simplex. ²⁸

9. **Reiter's syndrome:** It occurs as a consequence to non-specific urethritis in men, less commonly to bowel infection, and probably results from infection with Mycoplasma organisms. There is usually associated with arthritis and spondylitis and sometimes conjunctivitis. Psoriasis form skin lesions develop on the soles and toes. Inflamed, red, scaling patches may also develop on the glans penis.

10. **Atopic dermatitis:** This is a very common skin disease, involve the face and flexures of infants, children, adolescents, and young adults. The patient is constantly itchy and restless. The Intensity of itching increased by change in temperature, by rough clothing and by other minor environmental alterations.

11. **Pityriasis rubra pilaris:** In This disease colour of lesion is less distinct, deeply red follicular lesions are present and horny thickening has yellowish tinge.

12. **Parapsoriasis:** It may present as small plaque or large plaque parapsoriasis. The small plaque parapsoriasis is characterised by small to moderate sized plaques that arises on the trunk and proximal part of extremities. The border are distinct, scale are thin adherent and do not expose bleeding points on removal. Large plaque parapsoriasis is characterised by oval poorly defined plaques more than 5 cm in diameter. They are slightly indurated with fine superficial scales. The trunk and proximal extremities are involved. Auspitz sign is negative. The diagnosis of parapsoriasis is by exclusion and is further supplemented by histopathology. ²⁸

Prognosis of disease: A permanent cure is not yet known, though individual attacks can almost always, be controlled satisfactorily. Disease is non-infectious not longevity are unaffected though the majority of patients suffer from the disease on and off throughout their lives. Course is chronic with varying period of intermission (from weeks to years), the outlook is never either sure or bright but one should avoid an attitude of defeatism. The whole position must be explained to the patient and then he should be encouraged to persist with the treatment till all the lesions have disappeared. This brings down the relapse rate. The disease does not leave scars. The nail gradually assume their normal appearance. Flexural, erythrodermic and pustular psoriasis take longer to heal than the typical variety. ³³

Complications of Psoriasis: Psoriasis is a life-long, autoimmune inflammatory disease. It often appears as a skin condition, but it is a systemic condition that can affect many parts of the body.

1. **Joint Problems / Psoriatic Arthritis:** It has been reported as many as 30% of patients with psoriasis have some form of inflammatory arthritis. In this disease five major patterns of joint abnormality occur like, asymmetric oligoarticular arthritis, b, distal interphalangeal joint involvement in association with nail disease, symmetric rheumatoid like polyarthritis & spondylitis and sacroiliitis and arthritis mutilans.

2. **Celiac disease:** It may be present in up to 4.3 percent of those with psoriasis. People with celiac disease can experience a severe reaction when they consume gluten. Both celiac disease and psoriasis appear to stem from dysfunction in the immune system. Some people find that avoiding gluten helps to reduce the symptoms of psoriasis. In 2014, authors of a meta-analysis published in the *Journal of the American Academy of Dermatology* concluded that a gluten-free diet may help some people with psoriasis. However, they called for more research to confirm a link. ³⁴

3. **Mouth problems:** Some studies have suggested that people with psoriasis are more likely to develop problems with mucous membranes in the oral cavity, such as fissures in the tongue and lesions in the gums and cheeks. ³⁴

4. **Inflammatory bowel disease:**

Scientists have looked at possible links between psoriasis and inflammatory bowel disease (IBD), Crohn's disease, and ulcerative colitis. Studies have suggested that people with psoriasis and their family members may be more susceptible to these conditions. Psoriasis and IBD have various genetic factors in common. ³⁴

5. **Cancer:** Some studies have indicated that psoriasis may increase the risk of cancer overall and some specific types of cancer, including oral, oesophageal, liver, and pancreatic cancer. People with psoriasis and psoriatic arthritis have an increased risk of developing certain cancers. ³⁴

6. **Cardiovascular Disease:** In fact, individuals with severe psoriasis are 58 percent more likely to have a major cardiac event and 43 percent more likely to have a stroke, according to the NPF. (10) Some research shows that treating psoriasis may help lower your risk of heart attack and stroke.

7. **Metabolic Syndrome:** Among people with psoriasis, there is a higher risk of some of the symptoms of metabolic syndrome, including heart problems, diabetes, fatty liver disease, and obesity. ³⁴

8. **Body temperature regulation:** Some types of psoriasis can affect body temperature regulation, and this can have an impact on internal organs, such as the heart and the kidneys, according to the National Psoriasis Foundation. ³⁴

Conclusion:

Da-us-sadaf (Psoriasis) is a multifactorial inflammatory skin disease caused by accumulation of abnormal morbid sauda in the skin and characterized by T-cell activation, abnormal keratinocyte proliferation and neutrophil activation. In this article we have tried to focus the Definition, causes, phato-physiology and Unani as well as present approach of literature, which will be confidently, help for the diagnosis and management.

References:

1. Khanna. N,(2016), "Illustrated synopsis of Dermatology and sexually Transmitted Diseases" 5thed, Pp: 43-59
2. Longo, Fauci, et al, (2012), "Harrison's Principles of Internal Medicine" Vol I, 18thed McGraw-Hill Companies, US, Pp: 398-99
3. Sauer. G C., (1966), "Manual of skin diseases" 2nded, Pitman Medical Publishing Co. LTD, London, P:84
4. Boon. N. A., et al (2006), "Davidson's Principles and Practice of Medicine", 20thed, Elsevier science Philadelphia, P:1287

5. Sina. I (2007), “*Al Qanoon fit tib*” translated by *Gulam Hasan Kantoori*, Vol-II, III. New Delhi: Idara kitab-us-shifa, Pp: 413-414.
6. Claudia Jenneck. C, Novak, N, (2007), “The safety and efficacy of alefacept in the treatment of chronic plaque psoriasis” Dove Medical Press Limited, Germany, 3(3) Pp:411–420
7. Bell. L. M., Sedlack. R., et al (1991) “Incidence of psoriasis in Rochester, Minn, 1980– 1983. Arch Dermatol”; 127 (8):1184-7.
8. Parisi R, Symmons. D. P., et al. (2013), “Global epidemiology of psoriasis: a systematic review of incidence and prevalence”, J Invest Dermatol Pp:133, 377.
9. Michalek. I. M., (2017), “A systematic review of worldwide epidemiology of Psoriasis”, J Eur Acad Dermatol Venereol; 31:205.
10. Kaur. I., Kumar. B., et al (1986), “Epidemiology of psoriasis in a clinic from North India”. Indian J Dermatol Venereol Leprol 52: 208-12
11. Bedi. T. R. (1977), “Psoriasis in North India-Geographical variations”, Dermatologica 155: 310-4.
12. Swanbeck. G, Inerot. A, et al (1994), “A Population Genetic Study of Psoriasis”, Br J Dermatol 131:32-9.
13. Farber. E. M, (1998), “Epidemiology: Natural History and Genetics”, New York: Pp: 107-57
14. Dogra. S, Yadav. S, (2010), “Psoriasis in India: Prevalence and pattern” Indian Journal of Dermatology, Vol 76 , Issue 6 P: 595, Chandigarh, India, P: 595-96
Available [Online] http://www.ijdv.com/article.asp?issn=0378_6323; year=2010; volume=76; issue=6; spage=595;epage=601;aulast=Dogra
15. Christophers E. (2001), “Psoriasis- Epidemiology and Clinical spectrum”, Clin Exp Dermatol 26:314-320.
16. Sultana. A, et al, (2010), “Clinical Dermatology-Unani Concepts and Management” SR scientific publications, New Delhi, Pp: 3-13, 90-102
17. Valia, R.G: IADVL, (2010), “Text Book and Atlas of Dermatology”, 3rd Ed: Vol I, Bhalani publishing house Mumbai, Pp: 1025-55
18. Habif. P. T (2005) “Skin Disease Diagnosis and treatment” 2 ed, An imprint of Elsevier Pp: 106-115
19. Qarshi. A., (2010), “*Afadiya Kabeer Majmal*”, tarjuma-o-sharah (Translation and elaboration) by Hkm Kabiruddin. Idara Kitab-us-Shifa, dariya ganj, New Delhi, Pp:21-22
20. *Rushd. I.*, (1980) “*Kitab-ul-Kulliyat*”, Urdu translation by CCRUM New Delhi, Pp: 89-90
21. *Majoosi. A.*, (2010), “*Kamil-us-Sana't*”, urdu tarjuma by *Ghulam Hussain kantoori*, Idara Kiatb-us-Shifa Pp: 431-34
22. Hecht. M (2017), “Psoriasis: What’s the Genetic Link” Available [online] <https://www.healthline.com/health/psoriasis/is-psoriasis-hereditary>.
23. Ghosh. S, et al (2007) “Research Advances in Dermatology” Vol 2, excellent printers, New Delhi. P: 158, 160.
24. Leavitt. M, (2015) “The link between psoriatic disease and mental illness” Available [online] <https://www.psoriasis.org/advance/link-between-psoriatic-disease-and-mental-illness>

25. JE. Gudjonsson, Karason. A, (2002), “HLA-Cw6-positive and HLA-Cw6-negative patients with Psoriasis vulgaris have distinct clinical features”, NCBI, Iceland, Available [online] <https://www.ncbi.nlm.nih.gov/pubmed/11841557>
26. Kuchekar. A. B, Pujari. R. R et al (2011) , “Psoriasis: A comprehensive Review”, International Journal of Pharmacy & Life Sciences, Vol 2, issue 6, Pp: 957-877
27. Khan. B, Mohsin. M (2009), “*An Atlas on Amraz-e-Jild (Skin diseases)*”, Cadplan publishers and distributors, Okhla, New Delhi, Pp: 33-35
28. Virendra. N. Sehgal., (2004) “Text book of clinical Dermatology” 4thed. New Delhi: Jaypee Brothers Medical Publishers; 126-39, 131, 134 ,135, 137
29. Akhtar. S; Aleem. S. et al., (2011), “*The clinical study of Daus Sadaf (Psoriasis) and efficacy of itrifal-e-shahatra and roghan-e-Babchi in its management*”, Dept. Of Moalejat, AMU, Aligarh P: 30
30. Rasheed. R (2012), “*Therapeutic Evaluation of Unani Formulations in the Management of Psoriasis*” Rajiv Gandhi University of Health Sciences, Karnataka, Bangalore, Pp: 37-40
31. Munjal. Y, P, (2012), “API Textbook of Medicine” Vol 1, 9th edition, Jaypee brother publication, Dariyaganj, New Delhi, Pp: 494,96
32. Behl. P.N, Aggarwal. G.S, (2011), “Practice of Dermatology”, 10th ed, CBS publishers & distributors, New Delhi, Pp: 256-58
33. Behl, P.N, (2000), “Practice of Dermatology”, CBS Publishers and Distributors, New Delhi, Pp: 14-18, 253-256.
34. What are the possible complications of psoriasis” Medical News Today, Available [Online], <https://www.medicalnewstoday.com/articles/323641.php>