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MAHAKUSHTA AND KSHUDRAKUSHTHA: A COMPREHENSIVE DERMATOPATHOLOGICAL COMPARATIVE STUDY

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ABSTRACT

The term "*Kushtha*" means that disease which causes discolouration. It is of two type *Mahakushta* and *Kshudrakushta*. There are eleven varieties of *Kshudra Kushtha* and seven varieties of *Maha Kushtha*. ('*Sapta dravya*' or the "*Three Doshas*" and the role of *Tvak*, *Rakta*, *Mamsa*, and *Lasika* in the etiopathogenesis of *Kushtha*)The body's largest barrier between the interior and exterior environments is the skin. Skin disorders have several causes, including the use of bad foods, changes in lifestyle, or stress. Skin diseases are becoming more prevalent every day. Due to the lack of clear instruments or illustrations in the old *Ayurvedic* writings, differential diagnosis and identification of a specific *Kushtha* are typically exceedingly challenging. A comparison research is conducted between several *Kustharoga*, primarily *Mahakushta* and *Kshudrakushta*, and skin diseases known to modern science. There are many dermatological problems that the 7 varieties of *Mahakushta* and the 11 types of *Kshudrakushta* have in common, including *Siddhmakushta* with pityriasis versicolor and *Pama* with scabies, among others. Because he or she is not well informed in the recognition of cutaneous lesions or their range of presentation, a non-dermatologist will really have difficulty making a crisp differential diagnosis and identifying these conditions. Thus, in the

current study, an effort has been made to expound on and compare the numerous *Mahakushtha* and *Kshudrakushtha* mentioned in Ayurveda with the closest modern equivalent.

Keywords: *Kushtha, Mahakushtha, Kshudrakushtha, Skin disorder, Ayurveda*

INTRODUCTION:-

The skin covering the body has the biggest stretch of surface area of all the body's organs, measuring 1.5 to 2m². It weighs between 3 and 4 kg in total (and up to 16 kg when combined with fat). Skin thickness varies from 1 to 2 mm depending on the area of the body [1]. The skin is much more than just a protective covering since it comes into contact with many antigens at the point where the body and the outside world converge [2]. The body's greatest organ that can filter information from the internal and exterior environments is the skin. Significant rates of skin illnesses are present all throughout the world. Skin disorders impact all demographic groups equally and without regard to race, but they are more common in young people and those from lower socioeconomic backgrounds. This is largely because of bad hygiene habits. Additionally, some research indicate that severe climatic circumstances may increase the likelihood of skin diseases. The majority of skin illnesses spread by touch [3].

Additionally, having good skin is a prerequisite for both attractiveness and an attractive personality, which are fundamental human inclinations. It is a component that reflects physiological,

pathological, and metabolic conditions of the body and aids in disease diagnosis. In Ayurveda, *Twacha* is the first line of defense of the body. Any weakness at the skin becomes a significant social handicap for a person. According to Ayurveda, illnesses that affect the *Twacha's* seven layers—*Rakta, Mamsa, Lasika, and Twaka*—are referred to as *Twakaroga*. Ayurvedic classifications such as *Mahakushtha, Khudrakushtha, and Khudraroga* are all included in obstinate skin diseases in modern science. A total of 18 *Kustharoga* have been mentioned in our *Brihatrayee*, of which 7 are *Mahakushtha* and 11 are *Kshudrakushtha*. These diseases are referred to as "*Kushtha*" in Ayurveda. Diseases typically start when one, two, or all three *Doshas* become vitiated. According to etiological circumstances, one, two, or all three of the *Vatadi* three *Doshas* are vitiated (increase or decrease) proportionately. Varied forms of skin lesions have varied combinations and locations in the skin and adjacent tissues. Three *Doshas* (*Vata, Pitta, and Kapha*) and four *Dushya* (skin, blood, muscles, tissues, and fluids) that are in normal condition in the body begin to vitiate by the etiological factors when etipathogenesis begins to assemble at the body. As a result, clinical features such as

color, where the patches originate, shape such as circular, and size also differ. The skin, blood, tissues, and bodily fluids thereafter get vitiated. Finally, mixed humors spread across all tissues [4-11]. According to *Charaka Chikitsa* chapter 7/3.5, this leads to the production of eighteen different types of dermatitis, which manifest as skin conditions. Because patients frequently present with similar clinical features and little differentiation in their traits, it is important to conduct a critical analysis of skin diseases. As a result, diagnosing each condition separately is difficult. However, every *Kushtha* has a distinctive way to be recognized. In this work, an effort has been made to identify the distinctive traits of each *Mahakushtha* and *Kshudrakushtha*, as well as to establish a comparison with its contemporary counterpart for ease of comprehension. The seven different varieties of *Mahakushtha* are described as follows:

i) *Kapala Kustha*: The first specific clinical symptoms to suggest a diagnosis of scleroderma are skin thickening that starts as swelling or puffiness, and is rough, coarse, thin, and painful in a way that feels like it is pricking excessively. ii) Scleroderma or Morphea: It can be compared to scleroderma. A localized form of scleroderma called morphea, which affects the skin in a localized area only, manifests as asymptomatic mildly hyperpigmented,

indurated, circumscribed area with atrophy of the epidermis, resulting in shiny and wrinkled appearance of the plaque. Initially the lesion is pale and increased in size but later, after several months or years, they start regressing spontaneously. It is an acute infection of the hair follicle and surrounding tissue. It begins as a tiny, sensitive, inflamed, deep-seated follicular nodule that eventually develops into a pustule. The hair is shed during the early stage of the infection. Usually associated with deep-follicular and perifollicular infection, often throbbing pain, usually one or two tender, firm red, follicular nodules, which become necrotic and discharge their central core, as well as occasionally [12]. This *Mandala Kustha* can be compared with Psoriasis, It commonly manifests as well-defined erythematous scaly plaques which become silvery on attempts to scrap the lesion in this type vary in shape and size, some of them sometime coalesce to form large gyrate or geographical patterns [13]. The primary lesion in psoriasis is mildly itchy plaque or papule which is well-demarcated, indurated, deep pink to red colour erythematous elevated patches and the plaque is often surrounded by hypo pigmented halo. initially lesion are discoid but may be merge to form gyrate, polycyclic and geographic plaque, scaly, discoid. size and number of lesion are variable [14]. iv) *Risyajivha*: It is rough with red margins and

brown inside and it is painful which resembles like tongue of an *rsya* (a type of antelope) [15]. It can be compared with Lichen Planus, which are very itchy violaceous, polygonal flat topped papules with characteristic Wickham's striae on surface [16]. It can be compared with keratosis lichenoides chronica (KLC), it is symmetric eruption on extremities and trunk comprised of violaceous keratotic papules coalescing in to plaques with linear to reticular arrangement. classic clue:greasy, seborrheic-like centrofacial plaques [17]. It can be compared with Lichenoid keratosis which is having solitary,pink or red brown, scaly 0.5—1.5 cm plaque [18]. It can be compared to Lichen nitidus which is having multiple/grouped pinpoint, uniform, flesh-colored papules [19]. It is concluded that *Rishyajihva* is group of lichen planus, Keratosis lichenoides chronica, lichenoid keratosis, lichen nitidus. v) *Pundarika*: It is white in colour with red margins, it resembles the petal of lotus, elevated and associated with burning sensation [20]. It can be compared with Urticaria,in which itching is prominent, especially if wheal are superficial. lesion begin as erythematous macules, which rapidly evolve into pale pink edematous wheals with surrounding flare. Larger lesions annular with paler center [21]. It can be compare to Urticarial vasculitis which having symptoms like painful/burning urticarial lesion lasting >24 hrs (vs<24hrs

for normal urticaria) on trunk.resolve with hyperpigmentation or purpura; may have concomitant angioedema [22]. vi) *Siddhma*: Usually *Siddhma Kustha* is white and coppery in colour, thin, when rubbed emits small particles of the skin in from of dust resembling the flowers of alabu [23]. This can be compared to Pityriasis Versicolor which are hypo pigmented, (less frequently erythematous or hyperpigmented, so called versicolor) scaly and perifollicular macules, lesions appear to be sitting on the skin surmounted with branny scale which can be accentuated by scratching lesions gently [24]. vii) *Kakanak*: the one which resembles in colour of *Kakanantika* (gunja), does not suppurate,is associated with severe pain,manifest feature of all three dosas is *Kakanak Kustha* and is incurable [25]. This can be compared Squamous cell carcinoma (SCC) having frequently arises in already damaged skin. thickened indurated verrucous plaque .raised ulcer ,with a cauliflower-like growth with an everted broad edge and an indurated base; frequently, the induration is uneven and goes beyond the apparent lesion.. Lesion often attached to underlying structures eventually destroying them [26]. The description of the 11 types of *Kshudra Kustha* is as follows. i) *Ekkusth*: In this type skin looks like fish skin or scaly skin and there is absence of sweating [27]. According to *Acharya Sushruta*,it is skin disease in

which the body become black. It can be compared with Ichthyosis, It is a common hereditary disorder of keratinisation and manifests clinically as dry and scaly skin. ichthyosis literally means resemblance to fish skin [28]. ii) *Charmakhya*: In this type the skin become thick like an elephants skin and it also becomes rough [29]. It is compared with Xeroderma Pigmentosum (XP), in which develops multiple freckles and hypopigmented macules on background of dry, rough skin [30]. The initial manifestation occur in infancy and include photophobia and mild erythema on face which follow usually dryness and freckling on light-exposed area subsequently spreads to unexposed site as well as the disease progresses numerous telangiectasia and small angioma appear in between freckle. Small, rounded or irregular white atrophic macules can appear between freckles after a few years. At this point, the skin begins to exhibit signs of both atrophy and hypertrophy in various areas [31]. iii) *Kitibh*: It is dark, rough like corn, and coarse [32]. According to *Acharya Sushrut*, the skin becomes oily, dark, and rashes frequently. It is compared with Psoriasis Vulgaris; it is a typical plaque which is well defined, discoid, erythematous, indurated and surmounted with loose silvery scales [33]. iv) *Vipadika*: it is with severe pain and crack is found on hands and feet [34]. It is compared with fissure of heel and hand.

Heel fissure is split or crack in the epidermis, which can manifest as a consequence of anhidrosis and may or may not present with hyperkeratosis. Epidermal fissures are superficial and not considered to be a wound at this early stage. However, with increased pressure these splits become deeper, involving the dermis so that they begin to bleed and result in pain on weight-bearing activities. These fissures are regarded as partial-thickness skin wounds [35]. v) *Alasaka*: it is associated with itching and is with red color pimples [36]. It is compared with *Tenia cruris* which is seen in inner aspect of thighs as arcuate, sharply demarcated plaque with peripheral scaling, papulovesiculation, pustulation. Lesion expand centrifugally and center clears. Chronic lesions may show hyperpigmentation, nodulation and lichenification in center [37]. vi) *Dadru*: it is raised skin patches and itching [38]. It is compared with *Tenia Corporis* (Ring Worm) which is having an itchy, annular/arcuate polycyclic lesion with clear center and an active margin with papulovesicles and scaling [39]. vii) *Charmadal*: it is always associated with itching, pain, and leaves off flakes and is very tender to touch [40].

DISCUSSION:-

KapalaKustha is characterized by *Arunavarna*, *Ruksha* (rough), *Parusha* (thick) to touch, and becomes like pieces of *Kapala* (pot) due to the preponderance of

Vatadosha, which is the cause of the condition. *Kapala* is superior to scleroderma, which shares the same symptoms of being hard, glossy, and stone-hard. When compared to a furuncle, which is characterized by discomfort and itching coupled with red follicular nodules that emerge from hair follicles, *Udumbara Kustha* has a *Pittadosha* predominance, which is characterized by *Daha* burning sensation, *Ruja* (pain), and a change in hair color. Psoriasis and *Mandala Kustha* have similar light red to red erythematous raised patches; often, *Mandala Kustha* is dominated by *Kapha Doshas* and is hence *Snigdha*, *Sthira*. *Risyajivha's* roughness is linked to *Vata*, while the condition's (red edges) *Arunavarna* and *Ruja* (pain) are related to *Pitta Dosha*. This condition is more like lichen planus in terms of its violaceous, shiny, itchy skin. The clinical sign of *Pundarika* are the reddish-white spots. *Pittadosha*, which shares similarities with urticaria and manifests as an erythematous macule that is pale pink in color, is the cause of the burning feeling and the redness. In *Siddhmakustha*, *Vatadosha* and *Kaphadosha* are engaged, which produce tiny particles of skin in the form of dust; this is compared to branny scales and is emphasized by gently scratching. The *Kakana*, the final of the seven *Mahakushtha*, possesses the traits of all three *Dosas*, being red like a *Gunja* flower and experiencing

intense agony and burning sensations. Additionally, we see a thick, verrucous cauliflower-like plaque with a red granular floor in squamous cell cancer. *Kakanaka* is linked to squamous cell carcinoma since it is thought to be incurable.

The skin of the *Ekkustha* is black and has *Kaphadosh*, which is characterized by the appearance of its skin, which is scaly or like fish skin. There is also no sweating, and *Acharya Sushrut* mentions that it has *Kaphadosh*. This *Kustha* is thus contrasted with Ichthyosis, which clinically presents as dry, scaly skin. Ichthyosis resembles the skin of fish. *Charmakhya Kusth* has a predominance of *Vata Dosh* and *Kapha Dosha*, causing the skin to thicken and resemble elephant skin. Xeroderma Pigmentosum (XP), which features hypopigmented macules on a backdrop of dry, rough skin, is contrasted with this condition. Later, the skin began to exhibit both atrophy and hypertrophy in various areas. (iii) *Kitibha*, whose *Vata Dosha* and *Kapha Dosha* predominate, causing the skin to turn dark, rough like corn, and coarse. According to *Acharya Sushrut Kitibh*, *Pitta Dosha* symptoms include skin that is oily, dark, seeping, and itchy a lot. Therefore, it can be compared to psoriasis, which is characterized by well-defined plaques, discoid, indurated, and silvery scales. *Vipadika* is characterized by the preponderance of *Kaphadosh* and *Vatadosh*,

which cause severe pain and cracks on the hands and feet. *Vipadika* is thus related to the crack or split in the epidermal layer of the skin that occurs in the fissures of the heel and hand. *Alasaka*, on the other hand, is connected with itching and is associated with pimples that are red in color. It is therefore compared to *Tenia cruris*, which is characterized by irritation that occurs on the infected area, a raised rash edge, and skin that is scaly to the touch. Since *Pittadosha* and *Kaphadosha* predominate, *Dadru* is characterized by a raised, circular rash on the skin. These rashes are itchy and red in color. *Dadru*, according to Acharya *Sushrut*, is dominated by a *Kaphadosha* that resembles *Atasipuspa*. *Tenia Corporis* (Ring Worm), which has an itchy, annular/arcuate polycyclic lesion with a clear center and an active margin with papulovesicles and scaling, is compared to it. *Charmadal*, which, according to the Acharya *Sushrut* with *Pittadosh* and *Kaphadosha* supremacy. Therefore, it is invariably linked to a red boil or blister that is itchy and intolerant to touch, as well as a severe tugging pain (*osha*). The palms and soles are where this ailment manifests, according to Acharya *Sushrut*. As a result, it is contrasted with *Impetigo Contagiosa*, which has an exudative plaque with a thin wall and an erythematous foundation. Without center healing, the lesion extends outward, and several lesions may combine

to form polycyclic plaques. According to the teachings of Acharya *Sushrut*, the *Pittadosha* and *Kaphadosha* have authority over *Pama*. This *Pama* is characterized by small eruptions that itch, burn, and discharge; these eruptions can be white, red, or black. Thus, it is compared to scabies, which has symptoms like intense itching. Papules and papulovesicles, which appear as little erythematous papules or papulovesicles and may be excoriated, are caused by hypersensitivity to the mite. *Visphot* is experiencing *Kaphadosha* and *Pittadosha*. It features thin-walled eruptions and is reddish-white in hue. Thus, it is contrasted with Bullous Pemphigoid, which has huge, tense bullae and is irritating. There's a chance the bullae will bleed. *Shataru*, which is dominated by the *Kaphadosha* and *Pittadosha*. The skin contains numerous red or blackish boils that are blistering and painful. As a result, it is contrasted with granulomatous inflammation called Eyrethema Induratum (Nodular Vasculitis) erythematous, painful, deep-seated plaque or nodule at first. become erratic and bluish-red in color. *Vicharchika* has *Kaphadosha* and, in accordance with Acharya *Sushrut*, *Pittadosha*. This kind of pimple is blackish, itchy, and has profuse secretion. As a result, it is contrasted with eczema, which can cause pruritus, erythema, edema, papules, vesicles, scaling, and lichenification.

Now, *Acharya Sushurut's* descriptions of *MahaKusth* and *Kshudrakusth* are as follows: *Vatadosha* predominates in *Arun Kusth*. It is thin, spreading, and slightly vermilion in color. As a result, it is contrasted with Sweet Syndrome, a neutrophilic dermatosis in which skin lesions are composed of many erythematous papules or nodules that combine to create plaques. Pseudovesicular lesions may develop later. *Sthularusk* has *Kapahdosha*, which is distinguished by being very thick at its base. This is extremely tough to treat and is covered in hard pustules (*Arunsi*). It manifests at the joint site. Thus, it is contrasted with adult-onset atopic dermatitis, which causes severely irritating lichenified plaques. The neck, as well as the Cubital and Popliteal fossae. It can also be compared to psoriatic arthritis, which has symptoms such as psoriasis-like skin rash, pitted, brittle finger and toenail nails, swollen fingers and toes, achy, swollen, and stiff joints, and heel and foot discomfort (enthesitis). *Mahakusth* is dominated by *Kapahdosha*; during this *Kusth*, the skin constricts, bursts, pierces, loses all sense of touch, and becomes generally lassitude in the limbs. As a result, it is contrasted with lepromatous leprosy, which causes many erythematous and indurated plaques and nodules to form on the skin. *Pittadosha*, which is characterized by erysipelas, suppuration, a piercing pain, and loss of

consciousness across the skin, predominates in *Visarp*. The illness rapidly spreads across the entire body and affects the skin, blood, and flesh in sequence. As a result, it is contrasted with erysipelas, which manifests as a sensitive, erythematous patch that is finely defined and somewhat raised. It manifests as acute erythematous, heated, indurated, rapidly spreading plaques with a strongly defined edge and the potential for vesiculation. Painful lesions are common. *Parisarp* has a predominance of *Vatadosha*, which is shown by the quantity of pustules that gradually spread across the body's surface. In contrast, acute eczema is characterized by an ill-defined, erythematous, and edematous plaque that is covered in papules, vesicles, pustules, and exudate that dries to create a crust. *Kaphad*, a type of dry, non-exuding pimple that appears all over the body and is predominating in *Rakasa*, is characterized by intense itching. As a result, it is comparable to *Miliaria rubra*, which is characterized by prickling, burning, and itching in the patient. little erythematous papules that frequently have vesicles on top. It is also contrasted with the childhood form of atopic dermatitis, which causes dry, leathery, and extremely irritating plaques primarily on the knee and elbow flexor

CONCLUSION

After this research, we may attempt to compare the 11 varieties of *Kshudra Kustha*

and the 7 types of *Mahakushtha* stated in the *Ayurvedic Samhita* to those found in modern science. Based on this comparison analysis, it was discovered that the clinical aspects of the two cases were quite comparable. As a result, *Audumbara*, *Mandala Kustha*, and *Kapala* are each compared to Scleroderma, furuncles, and psoriasis, respectively. *Sidhma* has pityriasis versicolor, *Pundarika Kustha* has urticaria, *Risyajivha* has lichen planus, *Kakanak* has squamous cell cancer. It also makes an attempt to compare *Kshudra Kusth* with contemporary science. Thus, *Ekkusth* being compared with ichthyosis, *Charmakhya* with xeroderma pigmentosum, *Kitibh* with psoriasis vulgaris, *Vipadika* with crack heel/fissure of heel, *Alsak* with tenia cruris, *Dadru* with tenia corporis, *Charmadal* with impetigo contagiosa, *Pama* with scabies, *Visphot* with bullous pemphigoid, *Shataru* with erythema induratum, *Vicharchika* with eczema. Also mentioned by *Acharya Sushrut* are *Kustha*, which can be compared to current science. Sweet syndrome in *Arunkusth*, atopic dermatitis in *Sthularusk*, lepromatous leprosy in *Makakusth*, erysipelas in *Visarpa*, acute eczema in *Parisarpa*, atopic dermatitis in *Rakasa*, and miliaria rubra in *Rakasa*

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