CLINICAL EVALUATION OF AMA IN THE

PATHOGENESIS OF SKIN DISORDERS

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ABSTRACT

- 5 In Ayurveda, Ama is considered the root cause of many diseases. Ama contributes significantly
- 6 to the onset and progression of the disease. Ama is derived from 'Am' Dhatu+ 'Nich' pratyaya.
- 7 Ama is the substance which remains uncooked, immature and undigested. The formation of ama
- 8 depends on various factors, including physical and mental factors, as described in the vitiation of
- 9 Agni. This denotes impaired metabolism, which leads to the accumulation of toxins. These cannot
- beneutralized and areeasily eliminated by the body. When toxins accumulate in body tissues and
- 11 skin, they can lead toskin diseases such as Vicharchika, Mukhadushika, Switra, and
- 12 Kitibhakushta, as well as autoimmune conditions like systemic lupus erythematosus (SLE) and
- scleroderma.

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14 Keywords: Ama, Agni, Skin diseases, Kushta, Scleroderma

INTRODUCTION

- As a result of impaired kaya agni, annarasa is not properly digested, resulting in the production
- of Ama. The word Ama means uncooked, semi digested, immature, fermented non homologous
- substance in the body. This ama remains in the body and acts as a pathogenic factor in the
- 19 production of various diseases; therefore, the synonym Amaya is used for vyadhi.
- In India, the Global Burden of Disease Study 2017 showed that cases of skin and subcutaneous
- 21 diseases increased by over 53% between 1990 and 2017. This trend is not limited to India;
- worldwide, skin diseases are steadily increasing, but India's sharp rise highlights the seriousness
- of the issue. With skin-related disability increasing by more than half in just three decades, it is
- clear that skin health needs far more attention than it currently receives.
- According to Ayurveda, Skin diseases occur due to an imbalance of doshas and dhatus in the
- body. Two of the main causes of these diseases are an incorrect lifestyle (Vihara) and an
- 27 incompatible diet(Ahara) against the season or prakrithi of a person, which causes the generation
- of ama/ama visha in the body, which may be accumulated in the body tissues, skin, etc.,
- 29 contaminating them and causing skin diseases to manifest.

MATERIALS AND METHODS:

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- In the Vedic period, the terms Amaya and Amayam described ailments caused by the 31 accumulation of a toxic substance known as Ama. Classical Ayurvedic texts from the Samhita 32 period provide detailed insights into Ama as a central factor in disease development. For 33 34 instance, Charaka Samhita addresses its role in abdominal disorders (Vimana Sthana, TrividhaKukshiya Chapter 2; Grahani Chikitsa - Chapter 15), while Sushruta Samhita 35 elaborates on how Ama disrupts physiological balance, leading to digestive and systemic 36 disorders (Sutra Sthana-DoshadhatuMalakshaya Vriddhi Vijnaneeya – Chapter 15; Uttara 37 Sthana, AtisaraPratisheda – Chapter 40, including Ama Atisara Prakarana). The Sangraha 38 period further enriched this understanding, as seen in Madhava Nidana (Amavata Nidana 39 Prakarana) and Ashtanga Hridaya (Sutra Sthana), highlighting the interplay between Ama and 40 41 Sama in disease manifestation.
- 42 The gut microbiome regulates immune homeostasis through bidirectional communication with tissues and organs, establishing the gut-skin axis as a critical pathway linking intestinal and 43 dermatological health. When gut dysbiosis occurs, harmful bacterial byproducts breach the 44 compromised intestinal barrier and enter the systemic circulation, triggering widespread 45 inflammation through pro-inflammatory cytokines that directly affect skin barrier function. 46 47 Simultaneously, beneficial microbes that produce protective short-chain fatty acids are depleted, weakening immune regulation and creating an environment conducive to skin disease 48 development. Manifestation of ama in various skin disorders. 49

Vicharchika

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Samprapthi of Vicharchika originates from Ama, a toxic byproduct of impaired digestion. Ama vitiates all three doshas, particularly Kapha, and subsequently contaminates *rasa*, *rakta*, *mamsa*, and *lasika*. Widespread contamination obstructs bodily channels, causing *sanga* and *vimargagamana* of the doshas. As a result, the corrupted *rakta* and *mamsa* tissues lead to a loss of integrity and laxity in the skin (*twakshaithilya*). This underlying pathology manifests as the characteristic symptoms of Vicharchika: intense itching (*kandu*), vesicular eruptions (*pidika*), profuse oozing (*bahu srava*), and cracking of the skin (*sphutana*)

Mukha dushika

- In mukhadushikaagnidushti that result in dusthi of pitta pradhanatridosha that causes urdhwagati
- of ama dosha finally result in rakta, meda and swedavahasrotodushti, It results in tiryakgamana
- 61 to mukhapradesha results in mukhadushika

Switra

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- 63 In switra there will be Jatharagnimandya results in Ama production. Hereviharajanidana and
- 64 purva karma results in rasa dhatwagnidushti along with dushti of brajakapitta,vyanavayu and
- 65 tarpaka kapha at the level of skin.Brajaka pitta had a vital role in production of melanin. Here
- 66 brajaka pitta dushti causes the melanocyte damage that results in reduction/absence of
- 67 pigmentation of skin

Kitibhakushta

- Nidana sevana like aharaja(spicy food, junkfood, dadhisevana in ushna Greeshma and Vasanta
- 70 kala), viharaja (diwaswapna, exposure to cold air) manasika (stress) leads to jatharagni and rasa
- 71 dhatwagnijanya ama which vitiates tridosha along with twak,rakta,mamsa and lasika and get
- 72 sthanasamsraya in twak causing symptoms like shyavavarna,kinwakharaSparsha
- 73 ,parusha,rukshapidika and kandu

74 Systemic Lupus Erythmatosus

- 75 Systemic Lupus Erythematosus (S.L.E) is classified as a collagen disorder. From an Ayurvedic
- 76 perspective, semi-digested annarasa acts as an intermediate product that is neither properly
- absorbed nor eliminated. In this inappropriate form, it behaves like visha, triggering the
- 78 formation of autoantibodies wherever it accumulates. Consequently, abundant nuclear and
- 79 cytoplasmic autoantibodies are detected in the plasma, reflecting the autoimmune process

Scleroderma

- 81 Scleroderma is an autoimmune connective tissue disorder in which endothelial damage is
- 82 pivotal. In Ayurvedic terms, Ama, formed from impaired metabolism, resembles free radicals in
- 83 its toxic action. Its properties (pichhila, durgandha, and asamśuddha) explain its role in cellular
- 84 injury, offering a parallel between Ama pathogenesis and oxidative stress in modern science.

RESULTS &DISCUSSION

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- Ama, produced due to *Agnimandya*, acts as a toxic, sticky, non-homologous substance that obstructs srotas and disturbs dosha-dhatu balance. When localized in twak, rakta, mamsa, and
- lasika, it leads to a wide spectrum of skin manifestations
- Vicharchika aligns with eczematous conditions, where immune dysregulation and barrier
 dysfunction are observed, comparable to ama-induced tridoṣaduṣṭi.
 - Mukha Dushika resembles acne vulgaris, explained through ama-pitta involvement and srotodushti.
 - *Switra* correlates with vitiligo, where melanocyte destruction through oxidative stress mirrors the *brajaka pitta*dushti.
 - *Kitibha Kushta* parallels psoriasis, where metabolic toxins and immune activation cause scaling and itching, much like ama accumulation.
 - Autoimmune disorders such as SLE and Sclerodermabear a striking resemblance to the concept of ama, acting as free radicals and intermediate toxins.
- Ama can be seen atfour levels according to the localization of deranging agni and the respective stage of Paka, where it is formed.
 - ApakwaAnnaRūpaAma- When agni (digestive fire) becomes weak, even light and easily
 digestible food (laghuāhāra) fail to get properly processed. Consequently, food remains
 uncooked or undigested, leading to ama formation.
 - AnnaRasaRupaAma- Under normal conditions, a healthy *jatharāgni* digests food to form *anna rasa* that nourishes tissues. When *jatharāgni* is impaired, incomplete metabolism produces improperly processed essence called *anna rasa rūpa ama*.
 - MalaSanchayaRūpaAma- Digestion naturally produces metabolic by-products (*mala*). In a balanced state, these *malas* are eliminated without causing harm. However, when they accumulate excessively, they become toxic and causediseases. This pathological accumulation is referred to as *mala sanchayarūpa ama*.
- RasaSheshaRūpaAma- Sometimes, due to weak digestion (*agnimāndya*), food is only partially processed; some portions are digested, while others remain unprocessed. This leftover, improperly digested fraction of food essence is known as *rasa shesharūpa ama*.

Āchārya Vāgbhaṭa, while describing saṃsargajavyādhi, explains that when doṣas with antagonistic properties interact, instead of neutralizing each other, they produce a toxic by-product termed ama. Similarly, Āchārya Caraka has elaborated on 18 types of viruddhāhāra (incompatible diets). Such diets stimulate the doṣas but fail to eliminate them, resulting in ama accumulation. In conditions such asdoṣaviruddha, vīryaviruddha, guṇaviruddha, and satmyaviruddha, the opposing properties of food components counteract each other, impair digestion, and lead to the formation of ama.

The persistence and accumulation of ama within the body acts as a fundamental pathological factor. In particular, its circulation and deposition in the tvak (skin) and related tissues contribute significantly to the origin and progression of various skin diseases. Thus, ama serves as a key element in the pathogenesis of Skin diseases

CONCLUSION

From an Ayurvedic perspective, *ama* is the central pathogenic factor underlying the development of skin diseases. Impaired *agni* leads to incomplete digestion and the generation of *ama*, which, once accumulated, contaminates the *doṣas*, *dhātus*, and *srotas*. Classical references from Caraka, Suśruta, and Vāgbhaṭa consistently emphasize its role in disease manifestation, whereas modern research correlates *ama* with metabolic toxins, immune dysregulation, and the gut–skin axis. The clinical features of conditions such as *vicharchika*, *mukhaduṣikā*, *svitra*, *kitibhakuṣṭha*, and even autoimmune disorders such as SLE and scleroderma highlight the involvement of *ama* in their pathogenesis. Thus, it is evident that *ama* is not merely a byproduct of impaired digestion but the root cause that initiates and sustains the pathology of skin diseases. Addressing *ama* through proper *ahara*, *vihara*, and *śodhana* therapies is fundamental for both prevention and management.

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