

**“XERODERMA-
A REVIEW ACCORDING TO AYURVEDA”**

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ABSTRACT

Xeroderma refers to "dry skin," and is a common condition which results in skin roughness, tightness, flaking, and scaling. It can cause pruritus, leading to excoriations and an increased risk of skin infections. xeroderma is multifactorial in etiology and may occur in response to changes in the environment, underlying diseases, medications, or advanced age. This activity reviews the evaluation and management of xeroderma and highlights the role of the interprofessional team in managing patients with this condition. According to Ayurveda, 'Twak Rukshata' (dry skin) is classified under minor skin diseases or 'Kshudra Kushta'. Ayurveda states that our body functions are governed by the three life energies or Tridoshas - Vata, Pitta and Kapha. An imbalance in their levels directly affects our physical and mental wellbeing. An aggravation of the Vata and Pitta Doshas may increase heat and dryness in your body, leading to dry skin.

Key Words: - Xeroderma, Dry Skin, Ayurveda

INTRODUCTION

Xeroderma means “dry skin” and is a common condition which symptoms on skin roughness, tightness, flaking, and scaling.¹It can cause pruritus, leading to excoriations and an increased risk of skin infections. changes in the environment, underlying diseases, medications, or advanced age these are multifactorial etiology of xeroderma.²Cleansing the skin with lukewarm water and applying a thick moisturizer immediately after bathing may repair the epidermal skin barrier function and restore hydration³

ETIOLOGY

The condition of xeroderma will experience majority of people worldwide in their lives due to the loss of lipids in the skin.^{4, 2.} Xeroderma can be acute or chronic in nature, and its various causes are detailed below:

EXTERNAL CAUSES

For Skin cleansing: taking frequent, long, hot showers. Using harsh, alkaline soaps
Environmental factors: cold weather, low humidity, dry indoor heat, intense exposure to sunlight

Occupational factors for skin: contact with irritant agents (i.e., chemicals used in hairdressing or housekeeping)

ENDOGENOUS CAUSES FOR XERODERMA

- ✚ Skin diseases likes Inflammatory skin disorders: atopic dermatitis, allergic contact dermatitis, irritant contact dermatitis, dyshidrotic eczema, seborrheic dermatitis, psoriasis, etc.
- ✚ Infectious skin disorders (in the chronic phase): scabies, bacterial, or fungal infections
- ✚ Genodermatoses: xeroderma pigmentosum, ichthyoses (harlequin, etc.)
- ✚ Neoplasms: cutaneous T-cell lymphoma Internal/Systemic diseases

- ✚ Endocrine or metabolic: diabetes mellitus, hypothyroidism, hyperthyroidism, primary biliary **cholangitis,cholestasis, hyperparathyroidism, renal failure**
- ✚ Inflammatory: Crohn's disease, ulcerative colitis
- ✚ Infections: human immunodeficiency virus (HIV), hepatitis B or C virus
- ✚ Hormonal: pregnancy, menopause
- ✚ Hematologic: myeloproliferative disorders, multiple myeloma, Hodgkin’s and Non-Hodgkin’s lymphoma
- ✚ Psychiatric diseases
- ✚ Obsessive-compulsive disorders: excess skin washing
- ✚ Eating disorders: anorexia
- ✚ Addictions: alcohol or drug abuse
- ✚ Dietary
- ✚ Malnutrition: vitamin A or vitamin D deficiency, zinc or iron deficiency
- ✚ Medication-related
- ✚ Drug adverse effects: diuretics, beta-blockers, contraceptives, retinoid, long-term use of topical steroids, lipid-lowering agents, radiation therapy, etc.

Epidemiological incidence of xeroderma is unknown; it commonly affects both males and females of all age groups. Some studies show there is an increased prevalence in older patients, particularly over the age of 60 years. It is commonly seen in those with diseases like diabetes mellitus, renal failure, hypothyroidism, etc. or in those taking associated medications.⁵

PATHOPHYSIOLOGY

Natural moisturizing factors are important for the skin's water-binding capacity. Lactic acid, sugars, amino acids, urea these are natural moisturizing factors and lack of these factors cause Xeroderma. Abnormalities in the Stratum corneum and keratinocyte differentiation causes Xeroderma. Stratum corneum is skin's superficial barrier and contains lipids like ceramides, cholesterol, free fatty acids etc. that play a significant role in maintaining hydration. Decreased

lipid levels results in dry skin secondary to transepidermal water loss and dehydration. Reduction in keratinocyte proliferation causes xeroderma. ^{6,7,8.}

SYMPTOMS AND INVESTGATIONS

Clinically, dry skin will appear dull, rough, scaly, and tight, with associated fissuring, itching, and bleeding. The xeroderma diagnosis may use laboratory testing to assess underlying causes, such as thyroidhormone levels, vitamin levels, etc.

MANAGEMENT OF XERODERMA

Enhancing skin moisturization, optimizing skin barrier function, and promoting epidermal differentiation is simple and common management of xeroderma, these should focus on restoring physiologic lipids in the epidermis, ^{7,9}

Commonly recommended strategies include:

1. Infrequent bathing and using lukewarm water: should avoid aggressive skin washing and too hot water, which are harsh and strip the skin of protective oils and dries skin.
2. Use of mild cleansers: Traditional soaps should be avoided because they alkalinize the skin, leading to worsening dry skin and itching. Mild cleansers and synthetic detergent cleansers are preferred due to their acidic pH, which closely resembles the skin's natural pH. Synthetic cleansers are less irritating than traditional soaps, and their low pH. ^{10, 11.}
3. Routine use of skin moisturizers: Moisturizers should be applied to moist skin immediately after bathing, as this will decrease evaporation. Oil-based creams are thicker in consistency than water-based lotions and are more effective in providing moisturization. Ointments are greasier in texture and particularly useful for preventing transepidermal water loss. ⁸
4. Utilizing room humidifiers, especially during the winter season for staying hydrated with adequate fluid intake

Many products having Humectants, Occlusive's, Emollients contents and these contents are Active ingredients may improve skin texture and hydration.¹² Humectants promote water transfer from the dermis to the epidermis. Examples include glycerin, urea, ammonium lactate, hyaluronic acid, and gelatin. Occlusives create a hydrophobic layer over the skin, preventing water loss. Examples include lanolin, paraffin, petrolatum, cholesterol, and stearyl alcohol.⁸ Emollients can fill gaps and fissures in the skin. Examples include petrolatum, dimethicone, and propylene glycol.¹³

AYURVEDIC VIEW ON DRY SKIN

According to Ayurveda, excess vata plays a direct role in skin dryness. Vata dosha is defined by qualities like dryness, coldness, mobility, roughness, and clarity. Ayurveda talks about the important principle of like increases like the reason why vata properties tend to get aggravated during the cold months. Excess vata can show up as thinner blood, dry and rough skin, dry mucus, chapped lips, reduced electrolytes in the body, earaches, insomnia, bloating, gas, confusion, restlessness, anxiety, and inflammation, among other things.¹⁵

As we said, like increases like, so to tame dryness caused by excess vata dosha (combination of air and space elements), we need to use remedies that increase or possess the opposite qualities like warmth, unctuousness, softness, or thickness. Managing vata also requires getting used to a routine, especially a sleep routine.

DOSHA AND SKIN RELATION^{16, 17, 18.}

Dosha Vatadosha: Twacha is site of vatadosha. Vata carried sense of touch. It is main function of vyan vayu. Vrudhhi of vata dosha shows darkness of skin.

Pittadosha: It is site of bhrajak pitta. It gives colour lustre to skin. Pitta regulates the body temperature. Pitta vrudhhi shows yellowish discolouration of skin. In pitta kshaya, lustre of skin is lost called prabhahani.

Kaphadosha: Kapha vrudhhi causes whitish discolouration of skin.

DHATU AND SKIN RELATION¹⁹

Dhatu Mansa dhatu is directly related to skin. According to sushrutacharya last layer of skin is mansadhara. It shows sign and symptoms of mansavaha strotas dushti . Twacha and snayu are the root of mansavaha strotas. Ras and rakta dhatu indirectly related to skin because it is site of sira and dhamani. Skin lustre is sign of good shukra dhatu. Asthi dhatu causes dryness of skin. Mala Sweda is one of the trimala which maintains lustre and humidity of skin. Vridhhi of sweda causes itching of skin. Kshaya of sweda shows cracking of skin. Kriyatamaka vichar of skin is explained diagnostic tool for ayurvedic parikshana.

AYURVEDIC REMEDIES FOR DRY SKIN

Ayurveda is the science of life. Acharyas explain the art of living through Dinacharya, Rutucharya, Sadvrutta and dietary regimen etc.

Dinacharya

1. Abhyanga ²⁰ - Abhyanga means application of oil on skin. Abhyanga should do daily with tila taila. Useful for delays old age, destroys fatigue and vata, gives strength skin, increases luster of skin. It is supposed to be uttama tvachya as tvacha is a seat of vata mainly and tila taila has uttamavatashamana property.
2. Sharir Marjana²¹ – Sharir Marjana means Body made clean by rubbing with cloth. It helps to remove sharirmala, foul smell, and itching.
3. Udvartana²²– Udvartana means Application of medicated powder over body. It reduces kapha and meda, makes body firm and achieves tvak prasadana.
4. Snan²³ – Bath daily with hot water all over body. It helps to remove sharirmala, itching, sweat and burning. It increases strength, lustre.
5. Chatradharan²⁴– Use of umbrella alleviates natural calamities, guards against the sun, wind, dust and rain.

Rutucharya: -

1. Hemanta and Shishira Ritu²⁵– There is excessive cold is in Hemanta and Shishira Ritu, Recommendation of wearing thick and warm clothes in these ritu. Avoid diwa swap. All this measures helps to pacify accumulated kapha. So abhyanga should do with vataghna taila; Local application of Agarulepa.
2. Vasanta Ritu²⁶– Kapha prakopa takes place during vasanta ritu. Vasantika Vamana is beneficial during vasanta ritu. Avoid diwa swap. Udvartana, snan with sukhambu, and lepa with chandana and agaru should do in Vasanat ritu.
3. Grishma Ritu²⁷–Vata gets started accumulating in body In Grishma. Stay in cold room during day time and in moonlight at night on the top of the mansion with plentiful air having paste chandana on body.
4. Varsha Ritu²⁸ – Vata accumulated in grishma getsaggravated in Varsha ritu. Administer basti which helps to reduce vata. Take boil water as in this season water gets vitiated. Should not walk with bare foot and wear fomented cloth. Take bath regularly.
5. Sharad Ritu²⁹– In Sharad Ritu pitta gets aggravated hence Virechana and Raktamokshana is advisable. Should take Hamsodaka i.e. water heated in sunlight and made cold in moonlight during rising of agasti star. It should be used for bathing and drinking purpose.

Sadvrutta:

Sadvrutta is the code of conduct for health and good behavior. Aacharya Vagbhata has explained Dashavidha Paap Karma i.e. Himsa, Satya, Asteya, Anyathakama, false andirrelevant talk, anger etc. Sadvrutta should follow good conduct and avoid bad one to prevent skin diseases. For e.g. Aacharya Vagbhat has state dinsulting elder and respectable persons, stealing others valuable things, sins of this birth and previous birth are the causes of Kushtha.

Viruddha Aahar ³⁰:-

Viruddha Aahar means the food substance which dislodges the vitiated Doshas from their places and unable to expel them out of the body and acts as antagonistic to the tissues. Example are follows these are

1. Substances having viruddha virya i.e. sheeta and ushna when taken together kledotpatti takes place which lead to skin diseases. E.g.: Milk and Fish, Milk and Fruit these causes are seen in many patient suffering with psoriasis, shvitra etc. skin diseases.
2. Do not intake of excessive cold and excessive hot substances one after the other. E.g.: Hot food and Ice cream. Intake of sweet and heavy substances at the end of meal, Intake of excessive water, drinking water in early morning, Avoid drinking hot and cold water one after these leads to agnidushti.
3. Eating Guda and Milk together produces skin diseases because milk is of sheeta virya and guda is of ushna virya. The combination is totally opposite. Should avoid above factors which vitiates doshas and produces skin diseases.

DISCUSSION

Ayurvedic Samhitas and modern texts have same opinion about Dry skin. In both literatures describe the causes, pathophysiology and treatment for dry skin. Moreover in ayurveda this information in scattered and more describes about dry skin. In ayurveda deep study has been done about dry skin. This explains various opinions of classical and modern text as well about dry skin.

CONCLUSION: -

Skin is one of the major organ representing physical, mental, and social state of an individual. Ayurveda provides us with countless daily, seasonal tips and remedies to help keep us in balance restore the health of your skin. From the above references

Classical texts and modern texts have same opinion about Xeroderma (Dry skin). Lifestyle change are recommended for dry skin these are take daily Shower, use more oil for application on skin, Drink enough water, eat a balanced diet. Exercise every day, Get enough sleep,

Reduce stress, Avoid extreme weather conditions. Adaption of Dinacharya, Rutucharya; Maintenance of sadvrutta and avoidance of Viruddhaahara definitely help to prevent dry skin.

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