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## Therapeutic potential of *Roghan-e-Narjeel* formulated with *Moom Safed* in the management of *nar farsi* (Eczema) - A review

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### Abstract

Eczema is a chronic skin condition problem that causes itching, dryness and repeated skin sores which make life hard for the person. Regular treatments work well but can cause bad effects if used for a long time, so safer options are needed. *Roghan-e-Narjeel* (coconut oil), used in Unani medicine and made with *Moom Safed* (beeswax) as a cream base, is getting attention for helping with eczema. This review carefully looks at the medicinal effects of *Roghan-e-Narjeel*, like killing germs, reducing swelling and fixing the skin's protective layer, along with how *Moom Safed* helps by keeping the skin soft and stable. Scientific studies from labs and people show this natural mix works well and is safe to reduce eczema and keep skin moist. But, there are still questions about making it the same way every time and how it works long-term. Using this old medicine in new skin care could give another helpful choice for eczema but more careful research is needed.

**Keywords:** *Roghan-e-Narjeel*, *Moom Safed*, eczema, topical herbal therapy, unani medicine, *nar-e-farsi*

### 1. Introduction

#### 1.1 Overview of Eczema

Eczema is a chronic skin condition that causes intense itching, redness and peeling. It occurs in both children and adults all over the world and its rate or ratio is increasing day by day in recent years <sup>[1]</sup>. The disease occurs due to the skin's broken barrier and the improper immune system work, making the skin more sensitive to allergens and irritants <sup>[2]</sup>. Because eczema reoccurs many times, it affects people live and causes a great concern for health <sup>[3]</sup>.

#### 1.2 Importance of Traditional Medicines in Dermatology

Because medicines like corticosteroids and immune-suppressants can cause side effects when used for a long time, people have started to look again at traditional medicines for skin care <sup>[4]</sup>. Systems like Unani and Ayurveda focus on natural and complete treatments that help the skin protect and heal itself better <sup>[5]</sup>. Herbal oils and wax-based creams such as *Roghan-e-Narjeel* and *Moom Safed* are known for keeping skin moist, fighting inflammation and killing microbes, making them good extra options for treating skin problems <sup>[6]</sup>.

#### 1.3 Objectives and Scope of the Review

- To learn how the old Unani medicine uses *Roghan-e-Narjeel* and its main ingredient *Moom Safed* to treat eczema.
- To study scientific papers about how *Roghan-e-Narjeel* helps with swelling (anti-inflammatory), kills germs (antimicrobial) and keeps the skin moist in skin problems.
- To understand how *Roghan-e-Narjeel* and *Moom Safed* work together and how using both helps to manage eczema better.
- To check if this old remedies can be used in modern skin treatment by Evidence based information from Unani medicine and modern science.
- To find what is still unknown and suggest ideas for future studies to prove that this medicine is safe and works well for treating eczema.

This review wants to bring together all the scientific facts about how well topical *Roghan-e-Narjeel* made with a *Moom Safed* base can help treat eczema. It looks at how this traditional mix works, why it is made this way and how it can be used in real life to give a full understanding that can help future studies and doctors [7].

## 2. Review of Literature

### 2.1 Pathophysiology and Clinical Features of Eczema

#### 2.1.1 Etiology and Triggers

The aetiology of eczema involves many things like genetic, environmental and behavioral factors working together. Mutations in the filaggrin gene make the skin barrier weaker, so it becomes easier for allergens, irritants and microbes to enter [8]. Environmental triggers like dust mites, pollen, cold weather and strong detergents make symptoms worse especially in people who have a family history of atopy [9].

#### 2.2 Immunological Mechanisms

Eczema occurs because of an imbalanced immune response that involves both the innate and adaptive parts of the immune system. When Th2 cytokines like IL-4, IL-5 and IL-13 increase it causes higher IgE levels and more eosinophils [10]. This wrong immune signalling causes long-lasting inflammation and a cycle of itching and skin damage which makes treatment and healing hard.

#### 2.3 Clinical Manifestations

Eczema appears as red, scaly and thickened patches with very bad itching. In babies, the spots often start on the cheeks and scalp but in grown-ups it usually affects bending areas of the body. Scratching a lot can make the skin thicker, change its color and cause more infections. The disease can be mild with small patches or very bad with large areas and other body symptoms.

## 3. Unani Perspective on ECZEMA (Nar-E-Farsi)

### 3.1 Classification and Causes According to Unani Medicine

In Unani medicine, eczema is called Nar-e-Farsi. According to ancient literature it happens because the body's humors (Akhlat) are not in balanced state, mainly Safra (yellow bile) and Dam (blood) [11]. When this balance is lost, too much heat (Harrarat) and dryness (Yubusat) happen in the skin. This causes itching, redness and swelling. Eczema is

divided into types based on which humor is more and how the skin looks, like *Nar farsi* Saada (simple eczema) and *Nar farsi* Qarahi (ulcerative eczema).

### 3.2 Traditional Treatment Principles

In Unani treatment, the idea is Ilaj bil Zid (therapy by opposites). This means using things that are opposite to the problem to bring the humors back to balance. The treatment includes cooling, adding moisture and cleaning the body. Medicines like internal purgatives (Mus'hil) and blood purification (Tanqiya-e-Dam) are used. Also herbal oils such as *Roghan-e-Narjeel* and soft creams made from beeswax (*Moom Safed*) are applied outside [12]. These treatments help not only with the symptoms but also fix the main problem by balancing the person's temperament (Mizaj).

## 4. Pharmacological Properties of Roghan-e-Narjeel (Coconut Oil)

### 4.1 Composition and Active Constituents

*Roghan-e-Narjeel*, also called coconut oil, is mostly made of medium-chain fatty acids like lauric acid, capric acid and caprylic acid. Lauric acid makes up almost half of the fatty acids and is known for its strong antimicrobial and moisturizing powers [13]. These parts of the oil help it stay stable, absorb quickly and protect the skin when rubbed on it.

### 4.2 Antimicrobial, Anti-inflammatory and Skin-Healing Properties

The fatty acids in *Roghan-e-Narjeel* can break the cell walls of microbes, so the oil has strong antibacterial and antifungal effects. Lauric acid and monolaurin stop the growth of germs like *Staphylococcus aureus* and *Candida albicans* [14]. The oil also lowers inflammation by stopping pro-inflammatory cytokines and oxidative stress which helps the skin heal faster and repairs eczema wounds.

### 4.3 Previous Studies Supporting Its Use

Tests on people and animals have shown that coconut oil works well for skin problems like eczema. In controlled studies, virgin coconut oil helped skin stay more hydrated, reduced transepidermal water loss (TEWL) and worked as well as mineral oil and usual moisturizers [15]. It is safe and less likely to cause allergies, so it is good for children and people with sensitive skin.

**Table 1:** Pharmacological Activities of *Roghan-e-Narjeel* (Coconut Oil) Relevant to Eczema Management.

Pharmacological Property	Active Components	Mechanism of Action	Relevance to Eczema	References
Antimicrobial	Lauric acid, Capric acid	Disrupts microbial lipid membranes	Prevents secondary infections	[18]
Anti-inflammatory	Polyphenols, Vitamin E	Downregulation of pro-inflammatory cytokines (e.g., TNF- $\alpha$ , IL-6)	Reduces inflammation and redness	[18]
Skin barrier repair	Medium-chain triglycerides	Enhances lipid content and moisture retention	Strengthens skin barrier, reduces TEWL	[19]
Antioxidant	Ferulic acid, Caffeic acid	Scavenges free radicals, prevents oxidative damage	Minimizes flare-ups and cellular stress	[19]
Wound healing	Saturated fatty acids	Promotes epithelialization and collagen remodelling	Aids in repair of eczematous lesions	[20]

## 5. Role of Moom Safed (beeswax) as a Base

### 5.1 Composition and Therapeutic Role

*Moom Safed* (white beeswax) is a natural wax made by honeybees and is mostly made up of esters of fatty acids and

long-chain alcohols. It is used a lot in topical formulations because it is very stable and works well with the body [16]. In Unani medicine, beeswax is known for its cooling (mubarrid) and softening (mulattif) qualities which make it

good for skin problems that cause inflammation, like eczema.

## 5.2 Skin Barrier Enhancement and Emollient Effect

Beeswax works as a physical barrier on the skin, stopping

moisture from leaving while still letting the skin breathe. Its emollient effect helps to soften and calm dry, irritated skin often seen in eczematous lesions. It also helps active ingredients like fatty acids in *Roghan-e-Narjeel* to stay longer on the skin and work better <sup>[17]</sup>.

**Table 2:** Functional Roles of *Moom Safed* (Beeswax) in Topical Herbal Formulations.

Function	Mechanism	Benefits in Eczema Treatment	References
Occlusive agent	Forms a semi-permeable layer on the skin	Prevents transepidermal water loss (TEWL), retains skin moisture	[21]
Emollient	Smoothens and softens skin surface	Relieves dryness and scaling associated with eczema	[21]
Natural stabilizer	Enhances consistency and prevents separation of components	Ensures even application and shelf-stability of the formulation	[22]
Carrier for actives	Facilitates even distribution of therapeutic oils	Enhances penetration and bioavailability of <i>Roghan-e-Narjeel</i>	[22]
Anti-inflammatory property	Contains mild esters and hydroxy acids	Aids in reducing localized inflammation	[22]

## 6. Formulation Aspects

### 6.1 Method of Preparation

The making of *Roghan-e-Narjeel* with *Moom Safed* involves gently heating virgin coconut oil and beeswax until they mix well and become one. The heating must be done carefully to keep the volatile bioactive compounds in the oil safe. No synthetic additives or preservatives are added, following the old Unani pharmaceutics <sup>[18]</sup>.

### 6.2 Stability and Application Protocol

Adding *Moom Safed* helps make the formulation more stable by acting like a natural emulsifier and thickening

agent. It stops the mixture from separating and keeps it smooth and semi-solid which is good for applying on the skin. Usually this preparation is applied two times a day on the lesions for at least two weeks to see the healing effects <sup>[19]</sup>.

### 6.3 Advantages of This Formulation

This formulation has many good points, like staying longer on the skin, making the skin more hydrated and helping the active parts work better. Also it does not have steroids, so it is safe to use for a long time and good for sensitive groups like children and pregnant women <sup>[20]</sup>.

**Table 3:** Synergistic Effects of *Roghan-e-Narjeel* and *Moom Safed* in Topical Eczema Therapy

Parameter	<i>Roghan-e-Narjeel</i> (Coconut Oil)	<i>Moom Safed</i> (Beeswax)	Synergistic Outcome	References
Skin Moisturization	Medium-chain fatty acids improve hydration and barrier repair	Forms occlusive layer to retain moisture	Deep and sustained moisturization of the stratum corneum	[23]
Anti-inflammatory Action	Reduces cytokine release and oxidative stress	Mild anti-inflammatory esters and fatty acids	Reduced erythema (redness) itching and inflammation	[23]
Antimicrobial Protection	Lauric acid disrupts bacterial/fungal cell membranes	Acts as a protective film, preventing microbial invasion	Improved infection control in eczematous lesions	[24]
Texture and Spreadability	Light, penetrative oil base	Provides firmness and stability	Enhanced application experience and uniform distribution on affected skin	[24]
Wound Healing	Promotes epithelial regeneration and collagen synthesis	Seals the wound environment, maintaining hydration	Accelerated lesion healing and reduced risk of scarring	[25]
Stability of Herbal Actives	Supports absorption and retention of active constituents	Acts as a stabilizer for active compounds	Prolonged shelf-life and consistent delivery of therapeutic compounds	[25]

## 7. Preclinical and Clinical Evidence

### 7.1 Studies Supporting the Efficacy in Eczema

Several preclinical studies have shown that coconut oil has wound-healing, moisturizing and anti-inflammatory effects that help with eczema. In animal models, putting coconut oil on the skin reduced erythema and signs of inflammation seen under the microscope. Clinical studies in humans also showed that using virgin coconut oil-based preparations regularly lowered the severity of atopic dermatitis symptoms <sup>[21]</sup>.

### 7.2 Comparative Analysis with Conventional Treatments

When compared with regular emollients like mineral oil or petrolatum, *Roghan-e-Narjeel* formulations give the same or better results in improving skin hydration, lowering itching and fixing the skin barrier. It is important that they do not cause long-term side effects of corticosteroids, like skin thinning or tachyphylaxis <sup>[22]</sup>. When combined with *Moom*

*Safed*, these formulations deliver the oil slowly and keep it on the skin better than oil by itself.

## 8. Safety, Tolerability and Limitations

### 8.1 Potential Side Effects

While *Roghan-e-Narjeel* and *Moom Safed* are usually safe, some people have had mild allergic reactions like contact dermatitis in rare cases. These reactions might happen because of impurities in unrefined coconut oil or because of pollen leftover in beeswax <sup>[23]</sup>. It is good to do patch testing before using it all over the skin especially for people who know they have hypersensitivities.

### 8.2 Contraindications and Cautions

Even though these products are safe for most people, you should be careful when putting them on open wounds or infected eczematous lesions without proper antiseptic treatment. People who have nut allergies should ask a doctor

before using coconut-based products <sup>[24]</sup>. Also the products need to be made very cleanly to stop germs from growing especially if they are used in hospitals or at home.

### 8.3 Gaps in Current Research

Even though some small studies show good results, there are not enough big randomized controlled trials. Most of the information is only about short-term effects and does not tell us about long-term benefits or if the eczema comes back. More studies are needed to make the making process standard and to check how well these products work on different types of eczema and in different patients <sup>[25]</sup>.

## 9. Conclusion and Future Prospects

### 9.1 Summary of Therapeutic Benefits

*Roghan-e-Narjeel* when made with *Moom Safed*, shows great hope as a natural medicine you put on the skin to help with eczema. Its healing power comes from using Unani medicine knowledge and new skin care ideas. *Roghan-e-Narjeel* has important phytoconstituents like lauric acid, capric acid and antioxidants that give anti-inflammatory, antimicrobial and emollient effects. These parts help calm skin that is swollen, reduce itching and redness and bring back moisture to dry, hurt skin. *Moom Safed*, also called beeswax, works with this oil by making a shield on the skin that keeps moisture in and protects from things in the environment that can harm the skin. Together, these two parts help fix the skin barrier, lower eczema problems and stop more infections. Doctors' observations and first small tests show this mix is mostly safe and causes very few bad effects for most people <sup>[26]</sup>. This shows it could be a safe and easy choice for eczema care.

### 9.2 Future Research Directions

Even though the first results are good, more big studies are needed to check how well and safe *Roghan-e-Narjeel* with *Moom Safed* really is in real patients. Future research should do randomized, controlled trials with many different people to get strong proof. Watching for safety over a long time is also needed to make sure no late allergies or bad reactions happen. Testing biomarkers could help find out exactly how this medicine works and give clear signs of how much eczema gets better. Making sure the medicine is prepared the same way every time—like how much to use, how often to apply and how strong the active parts are—is very important to get the same results with different patients. Making these rules will help doctors accept and use it more <sup>[27, 28]</sup>.

### 9.3 Integration into Clinical Practice

For *Roghan-e-Narjeel* with *Moom Safed* to be used widely by skin doctors, there must be clear rules and approvals. Doctors need good training about how it helps, how to use it and when not to use it. Teaching patients is also important so they use it correctly and get the best results. Working together with traditional Unani medicine experts and modern medical researchers can help prove it works well, keep its quality good and add it safely into complete eczema treatments <sup>[29, 30]</sup>.

### Conflict of Interest

Not available

### Financial Support

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