



**TRADITIONAL SALTING PRACTICES IN UNANI MEDICINE: EVALUATING
BENEFITS AND RISKS IN CLASSICAL AND MODERN CONTEXTS**

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ABSTRACT

Traditional neonatal salting practices from ancient time, particularly as outlined in Unani medicine under the term "*Tamlīh*," have deep historical roots. From a Unani viewpoint, *Tamlīh* (salting) promotes the elimination of excessive moisture, hardens the skin, reduce sweating, removes bad smell, strengthen muscle, prevent infection and protects against foreign agents and from heat and cold and may improve wound healing. This article examines the contributions and views of major Unani philosophers Galen (*Jalinoos*), Ibn Zuhr, Ibn Sina, and others as presented in Unani literature. These views are contextualized with their stated techniques, the materials used, and their reasoning. Moreover, the paper evaluates the physiological impacts of these methods on neonatal skin, comparing their immediate and long-term outcomes in both Unani and modern biomedical frameworks. Special emphasis is placed on differences in skin anatomy and physiology between neonates and adults, highlighting how salting practices may alter or influence neonatal skin development, positively or negatively.

KEYWORDS: Neonatal salting, *Amal-i-Tamlīh*, *Tadabeer atfal*, Unani medicine.

INTRODUCTION

Neonatal care has occupied a vital position in Unani medicine for centuries, with special emphasis on strengthening and conditioning the neonate's body shortly after birth.^[1] Among these practices, salting or *Amal-i-Tamlīh* occupies a prominent position.^[1] In the classical unani literature numerous ancient medical philosophers including Galen (*Jalinoos*), Ibn Zuhr, Ibn Sina and others describe techniques involving the application of salt to the newborn's body.^[2] This practice is not merely a hygienic measure but is considered integral to ensuring the child's long-term health and protection from disease.^[1,2] While viewed as essential by Unani scholars, modern dermatology questions such practices due to concerns about barrier integrity, skin hydration, microbiome, and potential toxicity.

METHODOLOGY

The Research article on traditional salting practices in Unani medicine was primarily based on classical and authoritative texts of the system. Essential references and

descriptions were obtained from foundational works available in the libraries of State Unani Medical College, Prayagraj; State Takmeel-ut-Tib College, Lucknow; Aligarh Muslim University; and several other institutions. In addition, modern scientific literature was reviewed through databases including Google Scholar, Scopus, PubMed, and ScienceDirect to enrich the information. Supplementary details were also gathered from general sources such as Google.

Unani Philosophers and Salting Techniques

Galen, the renowned Greek physician, in his treatise *De Sanitate Tuenda* (On the Preservation of Health), described the practice of salting newborns as a preventive and hygienic measure.^[2,5] According to him, powdered salt should be sprinkled in moderate amounts over the body of the infant, followed by wrapping in swaddling clothes.^[2,3] The primary objective of this procedure was to make the baby's skin firmer and thicker.^[2] Galen believed that since the infant's skin and organs were soft and had been protected inside the

mother's womb, it was necessary after birth to prepare the body for the harsher external environment, enabling the child to withstand heat and cold.^[2,3] At that time, the fundamental rationale for salting was perceived as both purification and hardening of the skin.^[2]

Rabban al-Tabari, the eminent Persian physician, also echoed Galen's method in his celebrated work *Firdaus al-Hikmat*.^[4] He emphasized that the newborn should either be sprinkled with salt or bathed in saline water, with the same underlying intention of strengthening the skin and ensuring purification.^[2,4] Similarly, al-Razi, in his influential text *Kitab al-Mansoori fi al-Tibb*, discussed salting within the context of newborn care, though he did not explicitly mention the specific substances to be applied.^[2,5] Al-Majusi, another distinguished Persian physician, in his *Kamil al-Sana'a* (translated into Urdu), highlighted salt as an essential component of the process.^[6] He recommended mixing salt with other ingredients or diluting it in water before application, with subsequent cleansing of the skin through washing.^[2,6]

Al-Baladi, the renowned Arabic physician, presented his view in *Kitab al-Tadbir al-Hubala wa al-Atfal wa al-Sibyan*, a comprehensive work on maternal, infant, and child health.^[7] Influenced by Galenic principles, he advocated the use of salt alone for this purpose.^[2] He instructed that moderate quantities of salt be sprinkled over the infant's body, while carefully avoiding the mouth, nose, and eyes, and thereafter cleansing the child with lukewarm water to remove impurities.^[2,7]

Avicenna (Ibn Sina), the preeminent Persian-Arabic philosopher and physician, offered a more refined approach in his *Canon of Medicine (Al-Qanun fi al-Tibb)*.^[8] He supported the practice of hardening and cleansing the skin but proposed two distinct methods.^[2] The first, widely practiced in the Arab world, was to bathe the newborn in water lightly salted and perfumed with astringent substances such as bloodstone (*Shadnaj adsi*), costus arabicus (Qust), sumach (*Rhus coriaria*), fenugreek (*Hulbah*), and thyme (*Mazu*), while ensuring the eyes, nose, and mouth were protected. This mixture was subsequently removed with a lukewarm bath.^[2,8] In cases of excessive bodily secretions, the process could be safely repeated.^[2] The second method, described in his didactic poem *Urjuza fi al-Tibb*, was simpler, more economical, and less aggressive. Here, the infant was first anointed with astringent oil and then bathed before swaddling.^[2] Both approaches had the dual purposes of purification and skin strengthening, as Avicenna explained that the newborn's skin was delicate and sensitive to cold and roughness upon exposure.^[2,8]

In contrast, Ibn Zuhr (Avenzoar), the distinguished Andalusian physician, strongly opposed the salting of newborns.^[1,2] In his treatise *Kitab al-Aghdhiya*, he emphasized that the infant's body resembled fresh cheese, with fragile bones, organs, and skin, requiring

gentle rather than harsh care.^[2,9] He criticized salting as an extreme measure that could damage the skin, deprive the body of moisture, and induce pain and insomnia.^[2] According to him, salt acted as a potent astringent that not only burned the skin but also caused dehydration, ultimately weakening the infant.^[2] Instead, he recommended the application of acorn oil (*Ravghan Baloot*), which achieved the desired skin-firming effect without causing irritation, insomnia, or harm.^[2,9] His perspective marked a significant departure from Galenic tradition, sparking debate among physicians of his era.

Ibn Rushd (Averroes), the Spanish-Muslim philosopher and physician, weighed in on this controversy in his *Kitab al-Kulliyat*. He acknowledged Galen's view as suitable for Greek infants, whom Galen considered constitutionally stronger than Arab infants. However, Ibn Rushd leaned towards Ibn Zuhr's innovation, appreciating its scientific rationale and safety.^[10] He argued that while Galen preferred salt for its astringent and cleansing qualities, Ibn Zuhr had correctly identified its potential to irritate and damage delicate newborn skin.^[2] Ibn Rushd praised the use of acorn oil (*Ravghan Baloot*) as a safer yet equally effective alternative.^[2,10] Furthermore, he noted that Avicenna, in his *Urjuza fi al-Tibb*, had earlier advocated anointing newborns with astringent (Qabiz) oil before bathing, which closely paralleled Ibn Zuhr's method. This connection may have strengthened Ibn Rushd's conviction that oil-based applications represented a superior and more scientifically sound approach.^[2,10]

Thus, the historical discourse on salting reveals a continuum of perspectives: Galen and his followers endorsed salt as a purifying and fortifying agent, Persian and Arabic physicians refined the method with various modifications, while Ibn Zuhr boldly challenged the practice by offering a gentler, oil-based alternative later supported by Ibn Rushd.^[10] These divergent views underscore the dynamic evolution of neonatal care in Greco-Arabic and Persian medicine, highlighting both the persistence of traditional practices and the emergence of innovative, child-centered approaches.

Effect on Anatomy and Physiology of Neonatal Skin

The skin in newborns differs significantly from that of adults. The epidermis, especially the stratum corneum, is thinner and more permeable.^[11,12] The dermo-epidermal junction is less stable, and sebaceous and sweat glands are immature.^[11,12] The total water content in the skin is higher, but the ability to retain it is diminished due to the low lipid content.^[12-15] The pH of neonatal skin is also higher, making it susceptible to pathogenic colonization.^[12,13,15] Salting, as recommended by the Unani scholars, aims to speed up the maturation of this barrier. However, the mechanisms behind this are contentious.

From a Unani viewpoint, salting promotes the elimination of excessive moisture, hardens the skin,

reduce sweating, removes bad smell, strengthen muscle, prevent infection and protects against foreign agents and from heat and cold and may improve wound healing.^[2,16-19] The theory holds that if moistness is left unchecked, it predisposes the neonate to cold and heat diseases, infections, and lethargy.^[2] Thus, salting plays a role in strengthening the skin's resistance and functional maturity. In modern terms, some mild desiccation might stimulate epidermal turnover and barrier formation, yet harsh or repeated salting can damage the lipid lamellae, slow epidermal recovery, and cause systemic salt absorption potentially leading to complications like hypernatremia.^[16,18,20]

Modern dermatologic research supports cautious postnatal skin care, emphasizing emollient use to preserve barrier function, prevent dermatitis, and support microbiome development.^[21] Salting, when unregulated or combined with allergens and strong astringents, may reverse this benefit. Studies have also linked excess water loss early life skin barrier disruption to long-term atopic and allergic conditions like rash, dryness, pain, itch, deterioration of skin integrity burnt like skin.^[17,18,22]

Long-Term Complications and Cultural Reflections

Overuse or incorrect application of salting has been linked with dermatological conditions such as atopic dermatitis, pigmentation changes, and chronic xerosis. In more severe cases, especially in traditional communities where strong salt solutions are used, ulceration and dehydration, hypernatremia and may be renal failure have been reported.^[16,18,20] In regions like Turkey and parts of the Middle East, ethnographic studies reveal that some mothers avoid these practices due to their observed side effects, despite traditional endorsement.

Nonetheless, there remains cultural value in Unani rituals, especially those that blend salting with gentle oiling and massage. When executed with knowledge and moderation, these can offer emotional, tactile, and possibly immunologic benefits to the neonate. A combined approach—respecting traditional wisdom while adhering to modern safety standards may help preserve cultural heritage without compromising neonatal health.

CONCLUSION

Traditional salting practices in Unani medicine, as articulated by philosophers like Galen, Ibn Zuhr, Ibn Sina and others, offer a rich landscape of neonatal therapeutic strategies. Each physician emphasized strengthening the newborn and promoting long-term health through skin care. However, not all techniques align well with our current understanding of neonatal physiology.^[21]

Among all the techniques, both Ibn Zuhr and Ibn Sina demonstrated remarkable foresight in neonatal care, yet their approaches diverged in emphasis. Ibn Zuhr's use of acorn oil (*Ravghan Baloot*) instead of salt have same

effect as salt and prioritized protection and nourishment, preserving skin softness and preventing harm.^[1,9,10,20] In the modern perspective, this method is highly compatible with neonatal physiology, as acorn oil (*Ravghan Baloot*) serves as a natural emollient that maintains hydration and minimizes barrier disruption.^[21,23,24] Conversely, Ibn Sina's salting technique, though more moderate than earlier physicians, still retained salt as a cleansing and strengthening agent but balanced it with blood stone (*Shadnaj adsi*), costus arabicus (*Qust*), sumach (*Rhus coriaria*), fenugreek (*Hulbah*) and thyme (*Mazu*) to reduce abrasiveness.^[2,8,10] In Unani terms, Ibn Sina's method ensured both purification and hardening of skin, while in modern terms it provided cleansing benefits but carried a higher risk of irritation and transepidermal water loss compared to Ibn Zuhr's approach.

Therefore, Ibn Zuhr's acorn oil regimen emerges as safer and more suitable in modern dermatology, whereas Ibn Sina's balanced salting practice holds stronger weight in the Unani theoretical framework. Overall, when viewed through the lens of both systems, Ibn Zuhr's technique is better aligned with present-day neonatal care because its effects are same as salt means it also hardens and cleans the skin without or with minimal rare harm full effect on baby's health while Ibn Sina's approach reflects a more nuanced balance within classical Unani medicine.

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