



UNANI PERSPECTIVE OF PEDIATRIC TUBERCULOSIS (SIL): CLASSICAL MANAGEMENT AND SUPPORTIVE STRATEGIES FOR ATT-INDUCED ADVERSE EFFECTS

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ABSTRACT

Mycobacterium tuberculosis, the cause of tuberculosis (TB), continues to be a serious worldwide health concern, especially for children in high-burden nations. Due to its paucibacillary origin, ambiguous clinical presentation, and challenges with microbiological confirmation, paediatric tuberculosis is frequently underdiagnosed. The risk of illness progression and mortality in children is greatly increased by immunosuppression, malnutrition, low socioeconomic situations, and intimate household exposure. Furthermore, side effects such as gastrointestinal problems, hepatotoxicity, arthralgia, hypersensitivity reactions, and influenza-like symptoms are often linked to extended anti-tubercular therapy (ATT). According to the Unani medical system, tuberculosis is referred to as *Sil* or *Diq*, a chronic wasting condition brought on by abnormal heat (*Hararat-e-Ghariba*), depletion of body moisture (*Rutoobat-e-Tabayee*), distortion of temperament (*Su-e-Mizaj*), and weakness of vital organs (*Aaza-e-Asliya*). Its aetiology, pathophysiology, clinical symptoms and therapy were thoroughly discussed by classical Unani scholars such as *Razi*, *Ibn Sina*, *Jurjani* and *Majoosi*. In order to restore humoral balance, boost immunity, and enhance overall health, Unani management places a strong emphasis on *Ilaj bil Ghiza* (dietotherapy), *Ilaj bil Tadbeer* (regimental therapy) and *Ilaj bil Dawa* (pharmacotherapy). The traditional Unani view of paediatric tuberculosis and supportive Unani methods for the treatment of ATT-induced side effects are highlighted in this paper. Treatment tolerance, nutritional status, and quality of life in children taking ATT may be improved by Unani therapies targeting *Taqwiyat-e-Meda* (gastric strengthening), *Hifz-e-Kabid* (hepatoprotection), *Taskeen-e-Alam* (pain relief) and enhancement of *Quwwat-e-Mudabbira-e-Badan*. The review also highlights the necessity of more evidence-based research to support the use of Unani medicine as a supportive treatment for pediatric tuberculosis.

KEYWORDS: Pediatric Tuberculosis; *Sil*, *Diq*, Unani Anti-Tubercular Therapy.

INTRODUCTION

Tuberculosis (TB), caused by *Mycobacterium tuberculosis*, remains a major global health concern, particularly affecting children in high-burden regions. Despite advances in diagnosis and treatment, a substantial number of paediatric cases remain undetected or untreated, contributing significantly to morbidity and mortality. Young children, especially those under five years of age, are at higher risk of severe and disseminated forms of the disease, with close household exposure-particularly to infected adults-markedly increasing the risk of infection and death.

Globally, childhood TB constitutes a notable proportion of the total disease burden, though it is often underreported in national statistics. Factors such as malnutrition, immunosuppression, and poor socioeconomic conditions play a crucial role in disease susceptibility, progression, and transmission. The emergence of drug-resistant TB has further complicated its control and management.

From the Unani perspective, TB is described as *Sil*, a chronic debilitating condition resulting from derangement of humoral balance (*Su-e-Mizaj*),

particularly involving weakness of the respiratory system and vital organs. Unani scholars emphasize the role of impaired temperament, reduced innate heat (*Hararat-e-Ghariziya*), and accumulation of morbid matter in the pathogenesis of the disease. This holistic understanding highlights the importance of restoring humoral equilibrium and strengthening the body's natural defenses alongside symptomatic management.^[1,2,3]

MATERIALS AND METHODS

This review examines paediatric tuberculosis (*Sil*) and its supportive management during anti-tubercular therapy (ATT) using a thorough analysis of both contemporary biological sources and classical Unani literature. In order to gather information on the concept of *Sil/Diq*, including its aetiology, pathophysiology, clinical features, diagnosis, and management, authentic Unani texts by scholars like *Hippocrates*, *Razi*, *Ibn Sina*, *Jurjani*, *Majoosi* and *Ibn Zohr* were reviewed (*Ilaj bil Ghiza*, *Ilaj bil Tadbeer*, and *Ilaj bil Dawa*).

Using keywords like "paediatric TB," "*Sil*," "Unani medication," and "ATT adverse effects," sources like Google Scholar and PubMed were used to scan contemporary material. Additionally, pertinent textbooks on infectious diseases and pediatrics were consulted.

An integrated Unani and contemporary perspective of pediatric TB and its supportive care was presented by analyzing and synthesizing the gathered data.

RESULTS OF LITERATURE SURVAY

Pulmonary tuberculosis is known as *Tap-e-Diq*, *Humma-e-Diq*, or *Tadarrun-e-Revi* in the Unani medical system. It causes the development of a lung ulcer called *Sil*. TB fever is regarded as a serious illness that depletes the body's natural moisture and fluids, causing heat and dryness in the organs, especially the heart.

It is clear that Unani scholars were able to imagine and understand the sources and reservoirs of germs, the ways in which illnesses spread, and the possible reasons why infections could become epidemics even though they were unable to observe microbes.

Pulmonary TB is mentioned frequently in ancient Unani literature, which dates back to Hippocrates. Fever, wasting, coughing, and expectoration are the symptoms of the illness. The terms "*Diq*" and "*Sil*" were used interchangeably by Unani scholars to refer to low-grade fever and emaciation, respectively-two essential indications of tuberculosis.

Diq/sil stands for a prolonged fever that depletes bodily fluids, while *Sil* depicts the slow degradation of organs that results from the steady melting down of organs, leading to general body waste. The father of medicine, Hippocrates, often used these names interchangeably.^[4,5,6,7,1]

ETIOLOGY

Ibne Zohar claims that tuberculosis develops when a person's body becomes extremely thin, feeble, and their bodily fluids dry up. *Diq/sil* typically appears when important organs (*Aazae aslia*) get dry and heated (*Har yabis*). *Ismail Jurjani* claims that *Diq* is a fever brought on by unnatural heat (*Hararate ghariba*), which dissolves the body's normal bodily fluids (*Rutoobate tabayee*) when it is connected to critical organs, particularly the heart.

According to renowned Unani scholar *Razi*, pleurisy, pneumonia, and lung and diaphragm inflammation are the causes of *Diq /sil*.

Additionally, Unani doctors have separated the causes of *Sil* into two categories: extrinsic factors (*Asbab Badiya*) and antecedent causes (*Asbab-e- Sabiq*). Infectious fevers (*Huma-e-uffunia*), compound fever (*Huma-e-murakkaba*), day fever (*Huma-e-youm*), pneumonia (*Zatur-riyah*), and pleurisy (*Zatuljnab*) are the preceding causes. Anxiety, malnourishment (*Naqs Taghzia*), and a hot and dry disposition (*Haar Yabis Mizaj*) are examples of extrinsic factors. Additionally, they have focused on environmental variables including crowded neighbourhoods, lack of fresh air, and predisposing factors like chronic disorders. Additionally, sepsis of the humors (*Uffonat-e-akhlaat*) is said to be caused by any alterations in the air or water that get contaminated.

Ahmad Bin Muhammad Tabri Under the heading of vulnerability, some scholars have also identified the following conditions that, if left untreated, can result in *Sil*:

1. Temperament disorder with morbidity (*Sue e-mizaj Maddi*).
2. Kidney disease (*Amraz-e-Kulliia*)
3. Bladder ulcers (*Busoor-e-Msana*)
4. *Ziabetus*, or diabetes mellitus

In their writings, Unani doctors have also discussed the epidemic (*Waba*) and infection (*Tadiya*). *Sil* has been seen as a contagious and infectious illness. In the past, Unani doctors were aware of the infectious nature of *Sil*, the germs that cause it (*Ajsame Khabitha*) and a certain kind of material.^[8,9,10,11]

PATHOPHYSIOLOGY

This illness causes the body to retain abnormal heat (*Harart-e-Ghair Tabayee*) to the point that bodily fluids dry up. The Unani doctors believe that aberrant heat (*Hararat-e-Ghair Tabayee*) gets seated within the organs and may dry up all bodily fluids, especially of vital organs (*Aaza-e-Aslia*), in this sickness. They have split the body into three parts: organs (*Aza*), humours (*Akhlat*), and pneuma (*Arwah*). A type of fever known as *Humma-e-diq* (tubercular fever) is also brought on by this unusual heat. The Unani System of Medicine states that the dissolution of bodily fluids determines the grade of tuberculosis (*Tahallul Rutoobate badania*).

According to Majoosi, there are three levels of *Diq/sil*, such as:

1. **Diq Mutlaq:** *Diq Mutlaq* is a syndrome that occurs when abnormal heat causes capillary fluids to dry out. This is *Diq*'s first grade.
2. **Zabool/Sil:** *Zabool* occurs when abnormal heat kills the fluids of soft organs that are related to essential organs.
3. **Mufattit:** This ailment occurs when abnormal heat dries out the fluids of essential organs.

Ibn Sina classified *Diq /sil* into three grades:

First grade: When excessive heat (*Hararat Ghariba*) dries up the fluid in the essential organs (*Rutoobaate Talliya*), particularly the heart's fluid (*Qalb*), also called *Diq Mutlaq*.

Second grade: When the fluid that is about to become an organ (*rutoobaat Qareeb ba Iniqaad*) is destroyed by abnormal heat (*Hararat Ghariba*), it is referred to as *Zabool*.

Third grade: The third grade of *Diq*, or *Mufattit*, occurs when abnormal heat (*Hararat Ghariba*) eliminates fluid that has been in the organs from birth (*Rutoobaate Manviya*).^[1,12,10,13]

CLINICAL FEATURES

Sig in the Initial Phase: Low grade, persistent fever, and discolored appearance.

Sings in the Second and Third Stages: Facial cyanosis, sleep and sunken eyes, stretched forehead skin, weak and hard (*Zaeef* and *Sulb*) pulse, greasy urine, low-grade fever that is exacerbated after meals, hair loss, and diarrhea.

Furthermore, in the second stage, *Razi* and *Ibn Sina* mentioned the following sign:

- The appearance is similar to a coma (*Subat*), with oily stool, a weak voice, protruding bones, folded and clubbed nails, low blood volume, and thin skin over the stomach.
- Pulsus Myurus (*Nabz Zambulfar*) transforms into Pulsus Mesalius (*Nabz Misalli*)^{12, 14, 15}

DIAGNOSIS

- The Unani Concept states that the following points are used to diagnose a sickness.
- Physical manifestations (*Jismani Nishaniyan*) include a dusty appearance, facial cyanosis, sunken, drowsy eyes, dangling earlobes, stretched forehead skin, and hard vessels.
- Pulse (*Nabz*) turns into Hard Weak (*Zaeef*), Fast (*Saree*), and Continuous (*Mutawatir*).
- The loss of body fat causes urine (*Baul*) to become greasy. Temperature pattern (*Trz-e-Hrarat*): After a meal, the body releases heat like water on a fast lime. Feeding the patient at different times is one way to diagnose *Diq/Sil*, according to *Razi*. If the patient gets a fever after each meal, this is confirmed evidence of the illness.

- The most well-known doctors, *Ibn Sina* and *Ibn Rushd*, claimed that a tubercular person's (*Madqooq*) temperature stays constant and does not change, but that after eating, the temperature rises and the pulse becomes Pulsus Fortis and Magnus (*Qawee and Azeem*).
- *Ibn Hubal Baghdadi* has promoted temperature elevation as a pathognomic sign.^[16,17,18]

MANAGEMENT

Management of the disease includes following Unani Therapies:

1. Dieto-therapy (*Ilaj Bil Ghiza*)
2. Regimental therapy (*Ilaj Bil Tadbeer*)
3. Pharmacotherapy (*Ilaj Bil Dwaa*)

1. Dieto-therapy (*Ilaj Bil Ghiza*)

In order to successfully treat illnesses, Unani doctors have placed a strong emphasis on strengthening the patient's resistance. They have made eating a healthy diet-especially one high in protein-a priority in order to do this. The following dietary guidelines have been suggested:

Meat and Milk: Goat, donkey, and mother milk as well as fish, chicken, and bird meat are advised.

Knead it in water, make a four-and-a-half-gram tablet, and give it a glass of cool water. If you know how to create it, you can make it like pickled moong dal, make it with a large amount of yeast, or make it like white bajra by removing the millet husk.

Hydrating Vegetables: For their hydrating qualities, cold, moist vegetables such as *Khurfa* (*Portulaca oleracea*), *Khubbazi* (*Malva sylvestris*), *Kahu* leaves (*Lactuca sativa*), *Kaddu* (*Cucurbita moschata*), and *Kheera* (*Cucumis sativus*) are recommended.

Honey and Honey Water: It is recommended to use *Aasal* (honey) and *Maaul Aasal* (honey water) to reduce purulent expectoration and cleanse lung ulcers.

Particular Medical Advice:

Razi suggests eating fish, bird meat, rose water (*Arq-e-gulab*), and barley water (*Maaul Shaer*). *Ibn-e-Sina* is in favor of fish, pulses, and soft meats without fat.

Azam emphasizes the advantages of *Sarisham mahi* (isinglass) and promotes drinking lots of water to maintain body temperature, correct inadequacies, and fortify essential organs.^[15,12,8,14,19]

2. Regimental therapy (*Ilaj Bil Tadbeer*)

The following are some of the non-pharmacological therapeutic approaches to sickness management that Unani scholars have described:

Ablution Therapy (*Ghusal / Ightisal*)

The water used for ablution should be fresh, sweet, and lukewarm to ensure patient comfort and therapeutic

benefit. Prolonged ablution must be avoided, as excessive duration may lead to loss of patient strength and fatigue. Ablution plays a significant role in providing moisture (*rutubat*) to the body. The mild warmth of water temporarily softens the skin and opens the pores, facilitating the penetration of moisture into deeper tissues and organs.

Application of Oil

After ablution, violet oil (*Roghan-e-Banafsha*) should be applied over the body. The oil has a dual action:

- It directly provides moisture to the body
- It indirectly retains moisture by closing skin pores

This occlusive effect helps in locking the moisture gained from ablution within the body. Since ablution opens the pores, it enhances the absorption of oil into the tissues, thereby improving hydration and therapeutic effect.

External Cooling Measures (Cold Compresses)

Cold applications should be used to reduce internal heat and provide cardiac comfort. Suitable compresses include:

- Sandalwood paste
- Rose water
- *Khurfa* water
- Green coriander preparations

These substances help in cooling the heart and reducing systemic heat, which is essential in heat-related conditions.

According to *Jalinoos*, a patient with tuberculosis should be placed on a level surface and either forced to sit in a hot bathtub repeatedly or have lukewarm water poured over their body. They should then be carefully lifted, wrapped in a soft towel, and submerged in cold water right away. After being taken out, their body should be dried, their clothes should be changed, and they should be put back on a level platform before going back to their room. For TB patients, doing this procedure several times is thought to be quite effective.^[20,21,22]

3. Pharmacotherapy (*Ilaj Bil Dawa*)

Unani doctors have emphasized the use of mucolytics, desiccants, and healing medicines for treating *Sil* patients.

The first step in treating tuberculosis in Unani medicine is to determine and eradicate the underlying causes.^{1.} Providing cool, fresh water, keeping the surroundings moderate (avoiding extreme heat or cold), and making sure the patient stays emotionally calm and satisfied are examples of general precautions.

Green gram paste that has been soaked overnight is given in the morning during the early stages. It may be taken with milk if coughing is linked to fever. Cooling treatments including pomegranate syrup, pumpkin seeds,

and cucumber seeds are given for high fevers. Formulations including watermelon juice, grape juice, and herbal extracts such as *Gauzaban* are utilized when necessary.

Goat's milk is administered in amounts that are gradually increased and then gradually reduced in cases with associated dysentery. You can add cooling syrups like *Sharbat Nilofar* or *Sharbat Unnab*. Unani tonics such as *Khameera Gauzaban*, *Khameera Abrisham*, or *Mufarreah* preparations are advised for weakness.

Demulcent and calming medications including gum arabic, liquorice (*Aslussoos*), poppy seeds, and similar substances are used to treat coughs. Treatment for severe hemoptysis (blood in sputum) adheres to the same guidelines as for treating blood-related diseases and tuberculosis.

Mild herbal infusions are recommended if stomach issues arise. Certain Unani formulations, like *Sharbat Bazuri* and *Unnab*-based medicines, are used when liver involvement occurs.

Medication: One gram of finely crushed sulfur, *amla*, is very useful against blood poisoning and tuberculosis. Give it with the necessary medications, such as two tolas of *Ijaz* syrup, seven tolas of poppy seed paste, or one tolas of *Lauk sapstan*. *Al-Samak* in its Western form: It helps with tuberculosis and persistent cough. It is possible to boil and filter free *Al-Samak* 2 tolas, also known as Egyptian 2 tolas.^[23,24]

Common Risk Factor or Adverse Reaction After/During Receiving ATT Therapy in Childhood

Anti-tubercular therapy (ATT) plays a crucial role in treating pediatric tuberculosis; however, the extended use of medications like Isoniazid, Rifampicin, and Pyrazinamide can lead to several side effects, including gastrointestinal discomfort, liver toxicity, joint pain, allergic reactions, and general symptoms. Unani medicine offers supportive approaches focused on *Taqwiyat-e-Meda* (strengthening the stomach), *Hifz-e-Kabid* (protecting the liver), *Taskeen-e-Alam* (relieving pain) and *Islah-e-Mizaj* (correcting temperament).

These supportive tactics may assist in enhancing the tolerance to ATT, improving nutritional health, and elevating the quality of life for children.

Gastrointestinal Disturbances

The principles of Unani medicine state that conditions like *Zu'f-e-Meda* (gastric weakness), *Su-e-Hazm* (indigestion), *Ghasiyan* (nausea) and *Hurqat-e-Meda* (hyperacidity) are similar to symptoms like nausea, indigestion, gastric irritation, loss of appetite, and hyperacidity. These conditions are thought to be caused by weakness of the *Quwwat-e-Hazima* (digestive faculty) and disruption or irritation of the stomach's temperament.

Taqwiyat-e-Meda (stomach strengthening), *Islah-e-Hazm* (digestion correction), *Taskeen-e-Ghasiyan* (nausea alleviation) and *Taltif wa Taskeen* (calming and soothing the gastric mucosa) are among the *Usool-e-Ilaj* concepts that underpin Unani medicine. Nutritional correction through a light and easily digested diet is also thought to be crucial in addition to medication therapy.

For these ailments, a number of single Unani medications (*Mufradat*) are frequently advised. *Podina* (*Mentha arvensis*) is used as a carminative to ease stomach discomfort, while *Zanjabeel* (ginger, *Zingiber officinale*) functions as a digestive tonic and antiemetic. *Amla* (*Emblica officinalis*) has hepatoprotective and digestive qualities, *Elaichi* (*Elettaria cardamomum*) improves stomach function, and *Badiyan* (*Foeniculum vulgare*) helps with dyspepsia and bloating.

Jawarish Jalinus and *Jawarish Mastagi* are two common compound Unani formulations used to improve stomach function and digestion. While *Sharbat-e-Buzoori Motadil* aids in preserving gastric homeostasis, *Sharbat-e-Anar Sheerin* has calming and cooling effects on the stomach. *Itrifal Zamani* may also be administered when constipation and dyspepsia coexist.

A key component of treatment is dietary management (*Ghiza*). It is recommended that patients consume light, easily digested foods like pomegranate juice and rice gruel (*Yakhni*). To lessen the stress on the stomach, food should ideally be consumed in short, frequent meals and should not be oily, spicy, fried, or heavy.^[25,26,27,28]

2. Arthralgia

Pyrazinamide use during antitubercular therapy is frequently linked to arthralgia, or joint discomfort. These symptoms are consistent with *Waja-ul-Mafasil*, a disorder marked by joint pain and inflammation caused by an accumulation of aberrant humors (*Mawad-e-Fasida*) in the joints, according to the principles of Unani medicine. The accumulation causes the afflicted joints to enlarge, become stiff, and move painfully.

The concepts of *Usool-e-Ilaj*, which comprise *Taskeen-e-Alam* (pain reduction), *Tahleel-e-Warm* (inflammation resolution), and *Tanqiya-e-Mawad* (evacuation of diseased or abnormal humors from the body), form the foundation for the treatment of *Waja-ul-Mafasil* in Unani medicine. These therapy strategies seek to restore normal joint function, lessen discomfort, and minimize inflammation.

Mufradat is one of several Unani medications that are said to be helpful in treating inflammation and joint discomfort. Considered a traditional anti-arthritic medication, *Suranjan Shireen* (*Colchicum luteum*) is frequently used to treat inflammatory joint conditions. *Withania somnifera*, or *asgandh*, has tonic and anti-inflammatory qualities that strengthen the body and lessen pain. Because of its anti-inflammatory properties,

Haldi (*Curcuma longa*) is also frequently utilized, and *Guggul* formulations are suggested when appropriate to lessen swelling and increase joint mobility.

Majoon Suranjan and *Habb-e-Suranjan* are two compound formulations (*Murakkabat*) that are commonly used to treat inflammatory joint disorders and arthralgia. *Raughan-e-Surkh* and *Raughan-e-Babuna* are applied locally to the afflicted joints for pain relief, inflammation reduction, and calming effects.^[29,25,30,31,32,28]

3. Mild hepatic enzyme elevation (drug-induced liver stress)

The use of isoniazid, rifampicin, and pyrazinamide during antitubercular therapy is frequently linked to mild increase of liver enzymes. Because of their hepatotoxic properties, some medications may cause minor drug-induced liver stress. This condition is associated with *Zu'f-e-Kabid* (hepatic weakness) and *Su-e-Mizaj-e-Kabid* (liver temperament disturbance) in Unani medicine. Prolonged use of hot and poisonous medications may irritate the liver and disrupt its regular temperament and function, according to the Unani philosophy.

Hifz-e-Kabid (hepatoprotection), *Tadeel-e-Mizaj-e-Kabid* (normalization of liver temperament), *Tanqiya-e-Badan* (removal of morbid matter from the body), and the use of cooling and liver tonic medications to strengthen hepatic function and lessen irritation are among the principles of *Usool-e-Ilaj* that underpin the treatment.

Hepatic protection is thought to benefit from a number of Unani single medications, including *Mufradat*. While *Makoh* (*Solanum nigrum*) aids in lowering hepatic inflammation and enhancing liver function, *Kasni* (*Cichorium intybus*) is frequently utilized for its hepatoprotective and cooling properties. While *Bhuti* is well-known for its positive benefits on hepatic diseases, *amla* has antioxidant and liver-protective qualities. Additionally, *Tukhm-e-Kasni* is utilized as a liver tonic and cooling agent.

Sharbat-e-Deenar and *Sharbat-e-Kasni* are two of the compound formulations (*Murakkabat*) that are frequently prescribed for liver weakness and hepatic inflammation. While *Dawa-ul-Kurkum* and *Jigreen* are popular hepatoprotective preparations in Unani treatment to enhance liver function and shield hepatic tissue from drug-induced stress, *Arq-e-Makoh* is utilized for its cooling and detoxifying qualities.

Hepatic care also heavily relies on dietary management. It is recommended that patients stay away from heavy, greasy, and fried foods. To lessen hepatic burden and encourage liver function recovery, a light liver-supportive diet, fresh fruit consumption, and adequate water are advised.^[33,25,31,32,28]

4. Hypersensitivity Reactions (Itching and mild rash)

Isoniazid and rifampicin use during antitubercular therapy is frequently linked to hypersensitivity reactions, including itching and moderate skin rash. These manifestations may be associated with illnesses such as *Hikka wa Hakka* and *Amraz-e-Jild* (skin disorders), according to the principles of Unani medicine. According to Unani theory, these reactions-which result in itching, erythema, and skin eruptions are caused by extreme heat and blood irritation (*Hararat wa Ghalba-e-Dam*).

The concepts of *Usool-e-Ilaj*, which include *Taskeen-e-Hararat* (reduction of excessive heat), *Musaffi-e-Dam* (purification of blood), and *Taskeen-e-Hikka* (relief from itching and irritation), are the foundation for treating these illnesses. The treatment's objectives are to calm the afflicted skin, chill the body, and cleanse the blood.

Mufradat is one of several Unani medications that are said to be helpful in treating skin conditions and hypersensitivity. *Neem* (*Azadirachta indica*) has antibacterial, anti-inflammatory, and blood-purifying qualities. *Gul-e-Surkh* relieves heat and discomfort, whereas *Unnab* (*Zizyphus jujuba*) is used for its calming and cooling properties. *Sandal Safaid* is also thought to be a useful coolant that reduces itching and burning.

Sharbat Unnab and *Sharbat Sandal* are two of the compound formulations (*Murakkabat*) that are frequently recommended for lowering body temperature and relieving discomfort. While *Majoon Ushba* is thought to be helpful in chronic skin illnesses linked to blood impurities and high heat, *Arq Shahtra* is frequently utilized as a blood purifier in skin disorders.^[34,35,36,32,28]

5. Influenza-Like Symptoms (Weakness, feverish feeling and malaise)

During rifampicin treatment, influenza-like symptoms such weakness, feverish sensation, malaise, and widespread body discomfort are frequently seen. These symptoms are associated with *Zu'f-e-Quwwat* (general weakness of the vital faculty) and *Humma-e-Khafifa* (moderate feverish condition), according to Unani medical principles. According to Unani philosophy, long-term illness and the effects of potent medications can deplete the body's vital energy and disrupt the regular temperament, leading to malaise, low-grade fever, and exhaustion.

Strengthening the body, reviving vitality, and boosting immunity are the key goals of Unani medicine's supportive treatment of these symptoms. Several *Muqawwi* (general tonic) formulations are suggested for this use. *Khamira Gaozaban* Ambari is regarded as a useful nervine and heart tonic that enhances general energy and relieves weakness. *Khamira Marwareed* is used as a restorative preparation to improve resistance against weakness and exhaustion and to fortify the essential organs. Additionally, *Sharbat Gaozaban* is

frequently prescribed for its tonic, cooling, and refreshing properties.

Additionally, a number of restorative and immunomodulatory medications are employed to strengthen the body's defense system. *Asgandh* (*Withania somnifera*) is a tonic and adaptogen that enhances strength and lessens weariness. Rich in antioxidants, *amla* (*Emblica officinalis*) promotes immunity and overall well-being. Because of its immunomodulatory, antipyretic, and restorative properties, *Sat-e-Gilo* is also frequently used to help patients recover from feverish and weak situations.

Restoring *Quwwat-e-Mudabbira-e-Badan* (the body's natural defensive strength), boosting vigor, and easing the discomfort of influenza-like symptoms during antitubercular therapy are the goals of these Unani formulations and supportive measures.^[33,37,35,26,38,32,28]

CONCLUSION

According to Unani medicine, pediatric TB (*Sil/Diq*) is a chronic, crippling illness characterized by humoral imbalance and gradual tissue wastage. In order to bolster the body's natural defenses and restore health, traditional Unani management places a strong emphasis on nutrition therapy, regimental therapy, and medication. By managing typical side effects of anti-tubercular therapy, supportive Unani therapies may also enhance treatment tolerance and quality of life. To confirm the effectiveness and safety of these therapies as supplements to traditional TB treatment, more research is required.

DISCUSSION

This paper emphasizes how Unani medicine views pediatric tuberculosis (*Sil/Diq*) as a chronic wasting disease brought on by humoral imbalance and organ weakening. To improve health and boost immunity, Unani medicine emphasizes food, regimented therapy, and herbal remedies. Furthermore, Unani therapies may enhance treatment tolerance and quality of life while assisting in the management of ATT-induced side effects. Additional research is required to confirm these helpful strategies.

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